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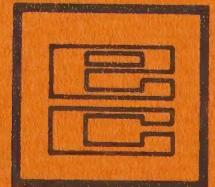
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**GENERAL PLAN ELEMENT
OPEN SPACE &
CONSERVATION**

EL CERRITO



EL CERRITO

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The Open Space and Conservation Element of the General Plan

El Cerrito, California

Adopted December 17, 1973

Based on

A Report by the Tri-Cities Citizens Advisory Committee
on Open Space and Conservation to the Cities of
El Cerrito, Richmond, and San Pablo, California

Tri-Cities Seismic Safety and Environmental Resources Study
El Cerrito, Richmond, and San Pablo, California



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ENDORSEMENT

The City of El Cerrito, while endorsing all of the policies in this Element, lacks the authority to carry out many of the policies, either because a state, regional, county or special purpose agency has the authority or because the land area referred to is outside the boundaries of the City of El Cerrito. The City of El Cerrito encourages all of its citizens to write or otherwise contact the responsible agencies and urge them to implement these policies. Part II of the Action Program lists some of the responsible agencies.

When studying the policies contained in this document, the reader should refer to the separate map entitled "Open Space Plan for the City of El Cerrito".

It should be noted that the contents of the Element and the Open Space Plan may be amended through the General Plan amendment procedure at any time such an amendment is deemed necessary to reflect the changing needs of the City.

EL CERRITO CITY COUNCIL

Kenneth A. Berndt, Mayor
Gregory A. Cook, Mayor Pro Tempore
Richard H. Bartke
Ernest Del Simone
Gary E. MacLaren

EL CERRITO PLANNING COMMISSION

Richard Komatsu
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John A. Olivero
John Sills

Tri-Cities



Seismic Safety and Environmental Resources Study

A JOINT PLANNING STUDY OF THE CITIES OF
EL CERRITO, RICHMOND, AND SAN PABLO

September 1, 1973

Members of the City Councils
El Cerrito, Richmond, and San Pablo

Gentlemen:

The Tri-Cities Citizens Advisory Committee on Open Space and Conservation submits herewith its final report, the Open Space and Conservation Element of the General Plan, for the Tri-Cities Area.

As directed by you, we have made a detailed study of the natural resources of the Tri-Cities Area and have prepared this plan to preserve those resources and to encourage urban development in those areas most suited to it.

Since November 1972 we have been meeting twice a month to complete our studies and our plan element. We have published six reports on the natural resources of the Tri-Cities Area, including such varied subjects as soils, water pollution, and flooding. In our work, we have had the assistance of our own staff, a Technical Advisory Committee composed of members of many other governmental agencies, and other specialists in such fields as wildlife, geology, and vegetation.

Since our Committee has completed its work, we plan to hold no further meetings, unless requested by you. We would be pleased, however, to appear before you at your request to discuss this Element.

Sincerely,

A handwritten signature in black ink, appearing to read "E. B. Griffin, Jr.", is written over the word "Sincerely".

E. B. Griffin, Jr.,
Chairman
Citizens Advisory Committee
on Open Space and Conservation

MEMBERS OF THE TRI-CITIES CITIZENS ADVISORY COMMITTEE ON
OPEN SPACE AND CONSERVATION

E. B. Griffin, Jr., Chairman	Richmond
Sherry Hayburn, Vice-Chairman	El Cerrito
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* Resigned.

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PART 1

Introduction

PART 1: INTRODUCTION

BACKGROUND

In recent years there has been a growing interest in conservation and in preserving natural resources for future generations. As one expression of this concern, the California Legislature in 1970 required counties and cities to complete open space and conservation elements as part of their general plans. This combined Open Space and Conservation Element has been designed to meet the state law requirements.

This Open Space and Conservation Element is a product of the Tri-Cities Planning Study, a joint study initiated by the cities of El Cerrito, Richmond, and San Pablo and assisted by federal '701' planning grants. Its purpose has been to prepare joint Seismic Safety, Conservation, and Open Space Elements for the three cities and to in general encourage intercity cooperation in environmental matters. To formulate policies for these plan elements, the City Councils of the three cities each appointed five members to a Citizens Advisory Committee on Open Space and Conservation and to a Citizens Advisory Committee on Seismic Safety.

The Open Space and Conservation Element was prepared during eight months of concentrated study and deliberation by the members of the Citizens Advisory Committee on Open Space and Conservation. This report presents the two essential parts of the plan elements: recommended policies to guide future development in the Tri-Cities Area so as to protect and maintain the natural environment; and recommended maps that apply these policies to the area.

In making its study of the Tri-Cities Area, the Tri-Cities Citizens Advisory Committee had the help of study staff and consultants and received extensive aid from city, county, and state agencies, and from university specialists. In addition, the Committee was assisted by a Technical Advisory Committee, whose members contributed greatly in the review of the Committee's work. Its members are listed at the end of this report.

Seven technical reports were published earlier this year, and give basic background material relating to the natural resources in the Tri-Cities Area: Geologic Hazards, Water Resources, Hydrology, Wildlife and Vegetation, Earth Resources, Recreational Resources, and A Plan for San Pablo and Wildcat Creeks.

The reports have been compiled and published as the Environmental Analysis of the Tri-Cities Area. They can thus be used as references in evaluating future development proposals. The findings presented in this plan are based on those technical reports.

LEGAL BASIS OF THE OPEN SPACE AND CONSERVATION ELEMENT.

According to state law, the Conservation Element must consider the conservation, development and utilization of natural resources including forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. The element may also consider land and water reclamation, flood control, prevention and control of water pollution, land use regulation in stream channels and other areas for the accomplishment of the conservation plan, prevention and control of soil and shore erosion, watershed protection, and the location of rock, sand, and gravel resources.

The Open Space Element must designate parcels of land or water which are essentially unimproved and devoted to any of the following:

- a. preservation of natural resources, including plant and animal life, fish and wildlife habitat, scientific study, watersheds, and surface waters and shorelines.
- b. managed production of resources, including forests, rangeland, areas of economic importance for the production of food and fiber, recharge areas for groundwater basins, surface waters important for the management of commercial fisheries, and areas containing major mineral deposits.
- c. outdoor recreation, including areas of outstanding scenic, historic, and cultural value, and areas which serve as links between recreation and open space reservations, including utility easements, streambanks, and scenic highway corridors.
- d. public health and safety, including areas which require special management or regulation because of hazardous conditions such as earthquake fault zones, unstable soils, floodplains, watersheds, high fire risks, and protection of air and water quality.

Because the subjects included in the Open Space and Conservation Elements are so similar, they have been combined into one element here. Policies listed in the Water Resources portion of this plan cover the conservation, development, and utilization of harbors, rivers, and other waters; flood control; prevention and control of water pollution; land use regulation in stream channels; watershed protection; preservation of surface waters; groundwater supply and recharge; and floodplains. The portion of the Element including waters was developed in coordination with the Contra Costa County Water Agency, and with all other district or city agencies which have developed or controlled water, including the East Bay Municipal Utility District, Stege Sanitary District, San Pablo Sanitary District, and Richmond Municipal Sanitary District.

Policies included in the Earth Resources section relate to the conservation, development, and utilization of soils and minerals; prevention and control of soil erosion; the location of rock, sand, and gravel resources and other

major mineral deposits; and geologic hazards.

Policies contained in the Wildlife and Vegetation section cover the conservation, development, and utilization of fisheries and wildlife; preservation of plant and animal life, fish and wildlife habitat, areas needed for scientific study, forests, rangeland, and agricultural land; and high fire risk areas.

Policies in the Recreational Resources portion include areas of outstanding scenic, historic, and cultural value, areas which serve as links between recreation and open space areas, and areas particularly suited to outdoor recreation.

In addition, this Open Space and Conservation Plan covers some areas not mentioned in state law but important to conservation efforts in this area, such as the effect of urban development on stream hydrology, and the necessity to preserve certain areas because of their contribution to urban form.

RELATED DOCUMENTS AND PLANNING EFFORTS.

The Tri-Cities Planning Study has drawn on other local and regional plans that refer to all or a part of the Tri-Cities Area. Both the Association of Bay Area Government's (ABAG) Regional Plan: 1970 to 1990 and the Bay Plan, produced by the Bay Conservation and Development Commission (BCDC), were followed in a general way.

One of the most important sources was the Richmond Coastline Plan and the working papers that provided background data for the plan. This plan was followed, with only minor departures, in the form in which it was adopted by the Richmond City Council in 1973.

The North Richmond-San Pablo Bay Study covers the North Richmond neighborhood and the sanitary landfill facility. This plan was largely incorporated into the Richmond Coastline Study. Its background reports provided much useful information.

The General Plans of the Cities of El Cerrito, Richmond, and San Pablo provided basic background information about the goals, objectives, and needs of the three cities and were extensively utilized in preparing this plan. Similarly, the Planning Departments of the three cities assisted greatly in explaining community needs and desires.

Finally, three documents to be produced by Tri-Cities Planning Study will greatly increase the usefulness of this plan in making future land use decisions.

The Environmental Management Plan will combine the Seismic Safety, Open Space, and Conservation Elements. The Environmental Analysis of the Tri-Cities Area will present background material for the Open Space and Conservation Plans, while the Earthquake Risk Analysis of the Tri-Cities Area will present the data used in formulating the Seismic Safety Plan.

DESCRIPTION OF THE TRI-CITIES PLANNING AREA.

The Tri-Cities Planning Area includes the Cities of El Cerrito, Richmond, and San Pablo, and certain unincorporated areas of Contra Costa County, including El Sobrante, North Richmond, East Richmond Heights, and Rollingwood. It is bounded by the Contra Costa County boundary on the west and south, by the Richmond city limits on the north, and by Sobrante Ridge on the east. The boundaries are shown in Information Map 1.

Topographically, the Tri-Cities Planning Area is characterized by a large flat area (the Bay Plain) and a series of four southeast-northwest trending ridges. The most westerly of the ridges is the San Pablo Peninsula, which is separated from the other ridges by the Bay Plain. The Bay Plain is characterized by a long shoreline, alternatively marshy and hilly, and by extensive flatlands where the population of Richmond, San Pablo, and El Cerrito is concentrated.

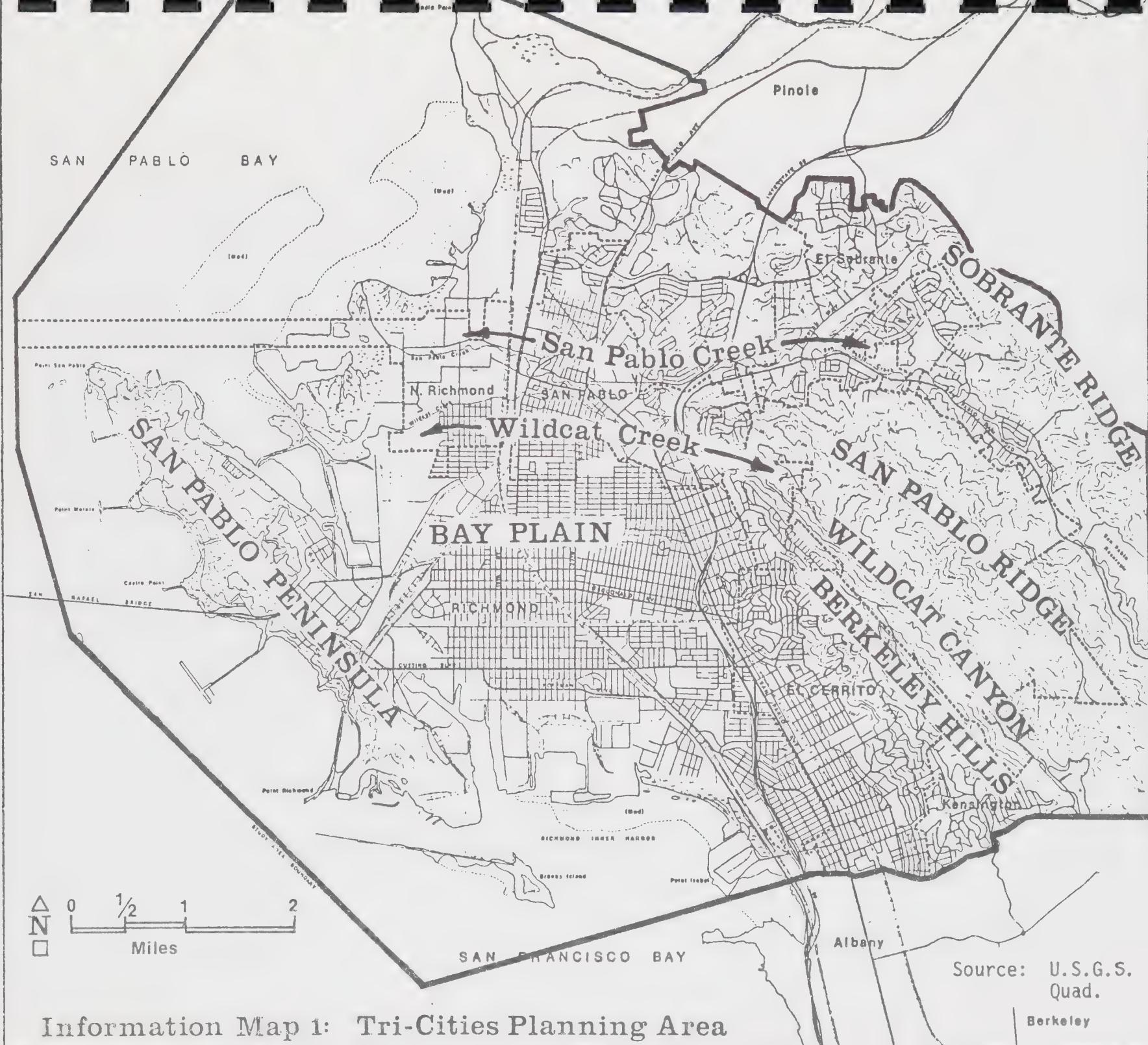
The other three ridges, the Berkeley Hills, San Pablo Ridge, and Sobrante Ridge, are the westernmost extension of the Briones Hills, a complex of hills and valleys noted for its rugged topography and unstable slopes. El Cerrito climbs the gentler south-facing slopes of the Berkeley Hills, while the steep north-facing slopes descend rapidly to Wildcat Creek. Between the Berkeley Hills and San Pablo Ridge is Wildcat Canyon, a rugged, wild area, owned in large part by the East Bay Regional Park District. On the north side of San Pablo Ridge, the valley of San Pablo Creek separates San Pablo Ridge from Sobrante Ridge. The community of El Sobrante is located largely in this valley.

Because the Bay Plain is so heavily urbanized and because West Contra Costa County has always seen itself as an industrial center, residents have been largely unaware of the natural resources in the area: the many miles of coastline, the rugged beauty of Wildcat Canyon, the shoreline cliffs at Pt. Pinole.

This Open Space and Conservation Element attempts to focus the awareness of the public on the natural values of the Tri-Cities Area, present a plan for their preservation within a framework of community needs, and demonstrate to the community that these resources can be developed to help to change the image of the area for the better.

EXISTING MAJOR OPEN SPACE AREAS.

The open space preserved in the Tri-Cities Area has recently expanded greatly, largely due to the interest and activity of its citizens. Open Space which is considered permanent includes (See Information Map 2):



Information Map 1: Tri-Cities Planning Area

Berkeley

	<u>Acres Land and Water</u>
Federal (Point Molate)	303
East Bay Regional Park District	3,594
East Bay Municipal Utilities District	992
City Parks	<u>416</u>
 Total	5,305

Additionally, there are thousands of acres of offshore water which is also considered permanent open space. These waters form a vast and beautiful "blue belt" of open space for the area, with public use rights.

In addition to permanent open space, an additional area in Wildcat Canyon, on San Pablo Ridge, and on Sobrante Ridge is in grazing, or in native brush and woodlands on the steepest slopes. All of this open space must be considered only temporary since it is not publicly owned. Temporary open space also includes private recreation areas, which total over 500 acres, and all the tidal zone except the two marsh areas included in Point Pinole Regional Park.

Additional temporary open space exists in scattered undeveloped parcels within urbanized areas. These can be called "vacant" since their agricultural, vegetation and wildlife uses are close to nil. However, their scenic open space value to the surrounding neighborhood may be very high.

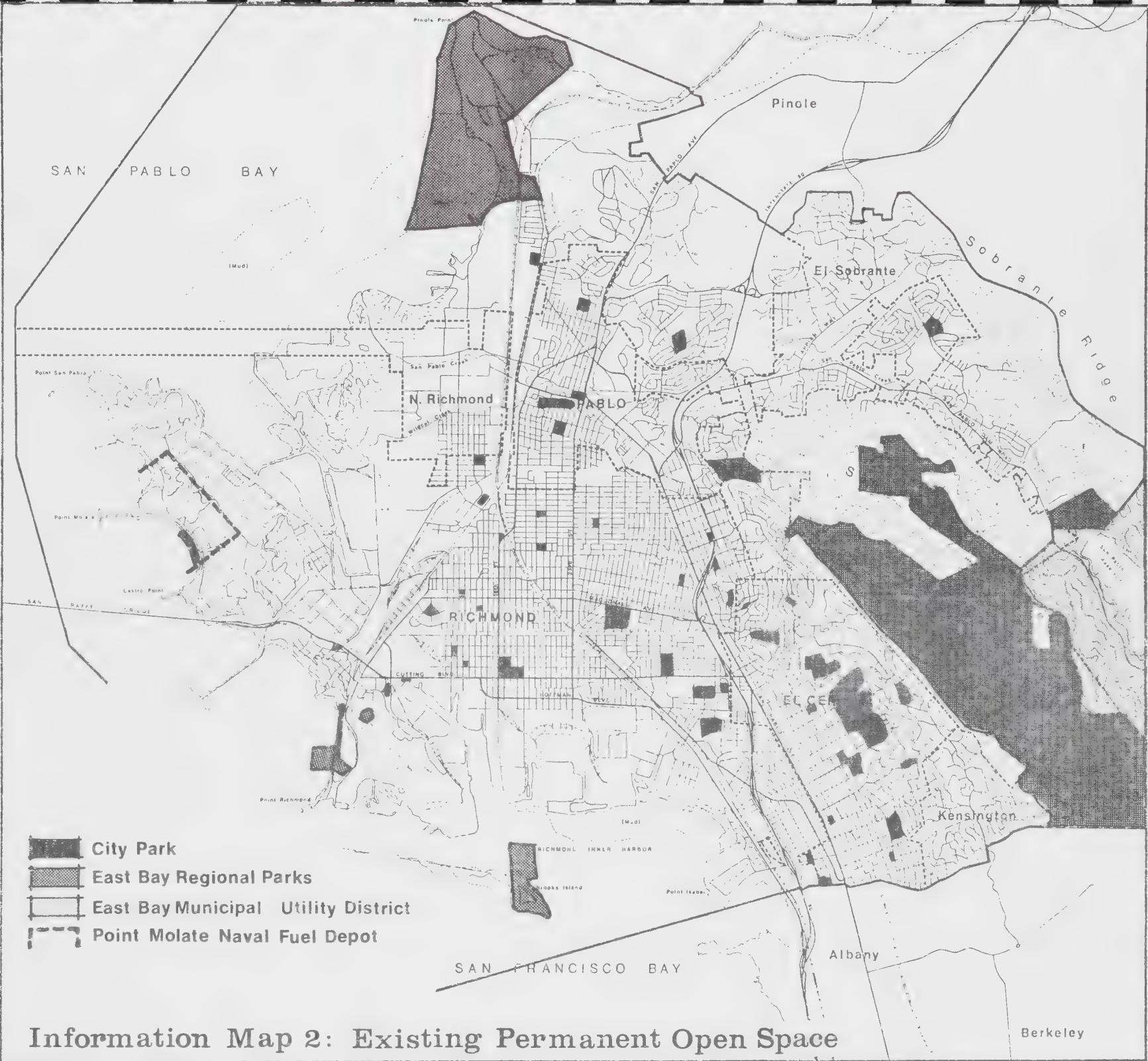
Park Lands.

All three cities maintain extensive park systems. The East Bay Regional Park District, however, is the largest landowner in the area. Point Pinole, Wildcat Canyon, and Tilden Regional Parks each totals well over 1,000 acres, and additional expansion of Point Pinole and Wildcat Canyon is planned. Point Pinole Regional Park and Miller Park near Point Richmond are the only regional parks on the Bay in Contra Costa County. These recent acquisitions have contributed over three miles of shoreline access -- a scarce opportunity for which there is a great demand in the Bay Area. All existing parks are shown as open space in the Open Space and Conservation Element.

Watershed Land.

992 acres of watershed land owned by the East Bay Municipal Utilities District are within the Tri-Cities Area and surround San Pablo Reservoir. The District in summer 1973 will open San Pablo Reservoir to boating, fishing, and other water-related recreation, greatly increasing the recreation opportunities in the Tri-Cities Area.

6



Federal Land.

The Point Molate Naval Fuel Depot may be declared surplus in the near future. If so, it should be acquired by another public agency and used for a regional park.

EXISTING OPEN SPACE IN GENERAL PLANS.

Information Map 3 illustrates open space shown in the three cities' existing general plans. Besides existing parks, San Pablo's Plan adds a linear open space area along San Pablo and Wildcat Creeks, a new hillside park east of Highway 80, and new parks next to schools. Richmond's General Plan indicates open space in Wildcat Canyon, on some of the unstable slopes of San Pablo Ridge, and on Sobrante Ridge. The recent adoption of the Richmond Coastline Plan by the Richmond City Council added a large area to the open space designation, in particular Point Pinole, Point Richmond, and the marshes and mudflats of North Richmond. El Cerrito's Plan adds a portion of the Santa Fe right-of-way and the power line corridor to existing parks.

Berkeley

Information Map 3: Open Space in Existing General Plans





PART 2

Summary

PART 2:
SUMMARY OF THE OPEN SPACE AND CONSERVATION ELEMENT

This Open Space and Conservation Element is designed to accomplish two major objectives:

1. To identify and to protect the natural resources of the Tri-Cities Area for the benefit of present and future generations.
2. To encourage urban growth in those areas where the natural characteristics of the land are most suited to such development, and to protect the public from risks to life and property.

To accomplish these goals, the Citizens Advisory Committee has proposed that the policies included in this Element be adopted. Each of the policies in this Plan Element was thoroughly discussed by the Citizens Advisory Committee. If the Element is adopted by the City Councils of the three cities, it is intended that each of the policies be used to guide new development, and that actions contrary to the policies be considered not in conformance with the Open Space and Conservation Element.

The Element has two kinds of policies. One type proposes specific physical changes, or prescribes management policies for a distinct physical area. These policies are mapped on the large open space map and on the policy maps included in the text.

The other type of policy applies to the entire area, and prescribes management techniques for new development, makes recommendations to other agencies, or suggests efforts to educate the public. Both kinds of policies are equally valuable.

This plan has been designed to meet the area's needs for approximately the next ten years. It thus can be considered in part a mechanism for timing the location of future development. At the end of that period, changes in population, economics, and the like may make it apparent that policies should change and that some areas should be added to or removed from the open space designation.

Major Element Proposals. Information Map 4 illustrates some of the major proposals of this Open Space and Conservation Element. They can be divided into four categories:

1. Reservation of Open Space Areas.

The Element designates all existing parks, marshes, and mudflats as open space, and recommends that the following areas be added to the open space designation:

- a. The Belgum Valley and north-facing slope of Wildcat Canyon should be designated as open space because of their importance to the Wildcat Canyon Regional Park view, steep, unstable slopes, significant wildlife habitat, serious fire hazard, possibility of damaging soil erosion, and lack of access and other public utilities.
- b. The Stege Sanitary District Plant should be utilized for a public park when it is no longer needed for sewage treatment.
- c. All existing agricultural uses in the North Richmond area should be designated as at least interim agriculture.
- d. Unique natural areas, important wildlife habitats, and areas suitable for nature study, particularly near schools, should be designated as open space.

2. Control and Protection of Certain Landforms.

- a. Ridges and Ridgelines. The Element recommends that development on ridges be controlled to protect the form of the ridges, in particular by restricting development on ridgelines.
- b. Creeks and Streambanks. The Element identifies waterways worth preserving and recommends controls to preserve riparian vegetation, to protect owners and buyers of property from erosion and flooding, and to increase public access to the creeks.
- c. Slopes. As a soil conservation and flood prevention measure, the Element recommends that slopes exceeding 30 percent in steepness not be developed and that development on slopes of 15 to 30 percent be designed to control erosion and runoff.
- d. Vista Points and Major Features. The Element identifies scenic overlooks, Bay vista points, and major visual features, and recommends that they be preserved and that public access be provided to the vista points.

3. Environmental Management Programs.

Many of the policies recommend that certain management techniques be followed to ensure that future development will not damage the environment. These policies can be divided into four categories:

- a. Water Resources. The Element recommends that lower per capita use of water be encouraged; that priority for new development be given to areas already supplied water; that the groundwater supply be protected; that sufficient storm drainage capacity be available to carry runoff generated by new developments; and that a master drainage plan be completed for Wildcat and San Pablo Creeks.
- b. Earth Resources. The Element recommends that an erosion control plan and revegetation plan be required as part of grading permits, and that mineral production be planned and carried out to avoid destruction or degradation of the environment.
- c. Wildlife and Vegetation. The Element recommends that salt marshes, mudflats, stream vegetation, and other important wildlife habitats be preserved; that native plant species be used for landscaping; that unique plant communities be preserved; that fire hazard to new developments be reduced by fire-preventive landscaping techniques and by discouraging new construction on the north-facing slopes of Wildcat Canyon; and that agricultural use of the remaining area of prime farmland be encouraged.
- d. Recreational and Cultural Resources. The Element recommends that the cities of West Contra Costa County participate jointly in determining standards for neighborhood, community, and regional parks; that public transportation be provided to the parks; that regional trails be provided; that archaeological sites be protected; and that the scenic features of the area be preserved.

4. Public Education.

The Citizens Committee was very concerned that the public be provided with more information about both the natural hazards and the natural resources in the Tri-Cities Area. The Open Space and Conservation Element will assist in meeting this goal by alerting both public agencies and the community to the

valuable and sometimes unique land areas in the Tri-Cities Area. The Committee has also recommended that the cities inform their citizens of the available flood insurance programs; of the need to reduce water consumption; of possible erosion hazards along creekbanks; of methods that can be used to reduce fire risk; and of the regional parks in the area.



The Open Space and Conservation Element

WATER RESOURCES

PART 3:
THE OPEN SPACE AND CONSERVATION ELEMENT

SECTION 1: WATER RESOURCES

WATER SUPPLY

1. Findings.

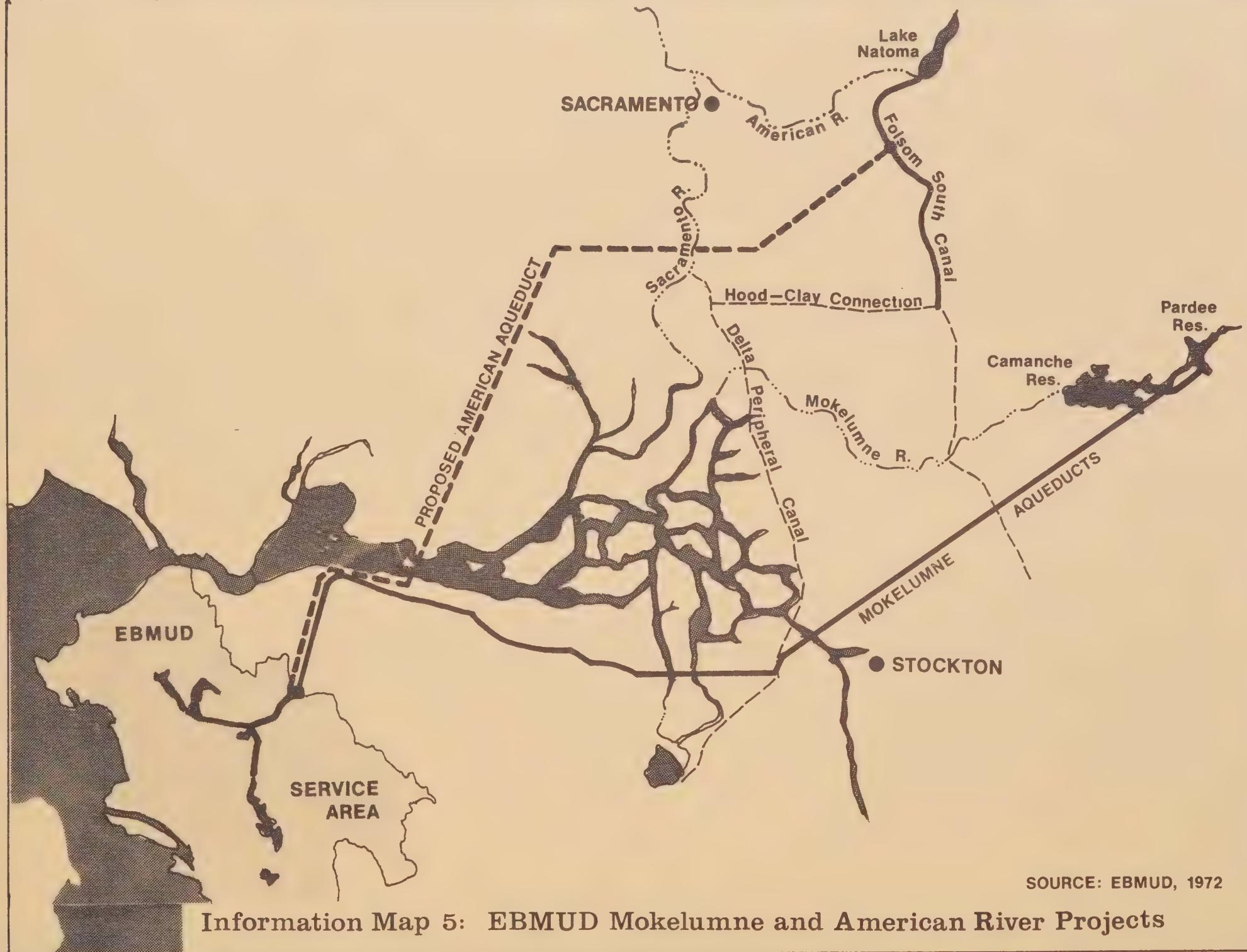
1. West Contra Costa County's water supply is obtained from the East Bay Municipal Utility District. The entire District presently uses a total of 210 million gallons of water a day. About 95 percent of this water is imported from the Mokelumne River, and about five percent comes from local runoff (See Information Map 5). The District estimates that a total of 315 million gallons of water per day are safely available from local and imported sources.

2. To protect the water supply from deterioration, it is necessary to protect the watershed area around reservoirs from soil erosion and pollutants. All of the watershed around San Pablo Reservoir in the Tri-Cities Area is owned by public agencies, and is managed to ensure that the water supply is preserved.

3. The East Bay Municipal Utility District has calculated that from 361 to 421 million gallons of water per day will be needed by the year 2000. This projected increase will be partly due to population growth and partly to increased per capita use of water. If the District's projections are correct, the entire District, including the Tri-Cities Area, will face a water shortage between 1982 and 1986.

4. To ensure that an adequate supply of water will be available, the Municipal Utility District proposes to import water from the American River. While American River water is of much higher quality, it is costlier than Sacramento River water. It is feared that the use of American River water might degrade the quality of the Sacramento-San Joaquin Delta, although the quality of the Delta is protected by resolutions of the State Water Resources Control Board. It is also feared that the Peripheral Canal and other diversions might lower water quality in the Delta.

5. Other means of providing water other than importation have been considered. Desalting is unfeasible at present because it is too costly. State and Regional Water Resources Boards have been encouraging the use of reclaimed water. The East Bay Municipal Utility District will construct a pilot one million gallon per day waste-water reclamation plant by 1975, and industries and



WATER SUPPLY

businesses might also reclaim some of their own water. If all wastewater were reclaimed and marketable, there would be little need to import water. However, EBMUD does not believe reclamation will be feasible soon enough to delay importation of water.

6. The need for water would also be reduced if individuals, industries, businesses, and public agencies used less water. The Utility District has raised its rates for large users so that they receive less preferential rates. Other methods to reduce the use of water might include local regulations to require water-saving devices; consumer education; and changes in the Utility District's practices.

7. Locally, water is distributed from filter plants, to storage tanks or reservoirs, and then through a series of water mains to individual residences. Providing water to developing areas depends most critically on the presence of a reservoir of the proper size and elevation to serve the new development. If an adequate reservoir is not available, the developer must advance funds for the construction of a new reservoir. Thus, the size and elevation of these reservoirs help to determine the location of new development. Such tanks are largely lacking in the Wildcat Canyon-San Pablo Ridge Area and in parts of El Sobrante.

2. Policies.

1. To reduce environmental damage caused by the need to import water and to protect the productivity of the county's off-shore waters, a detailed environmental assessment of the American River project now being carried out should be supported. All possible measures should be taken to mitigate adverse effects. In particular, the quality of Sacramento River water and the Sacramento-San Joaquin Delta should not be degraded and should be improved to the fullest extent possible. Proper conservation techniques should be applied to all northern California water.

2. To reduce the need to import water, the following policies should be adopted:

A. Reclamation of wastewater should be greatly expanded.

WATER SUPPLY

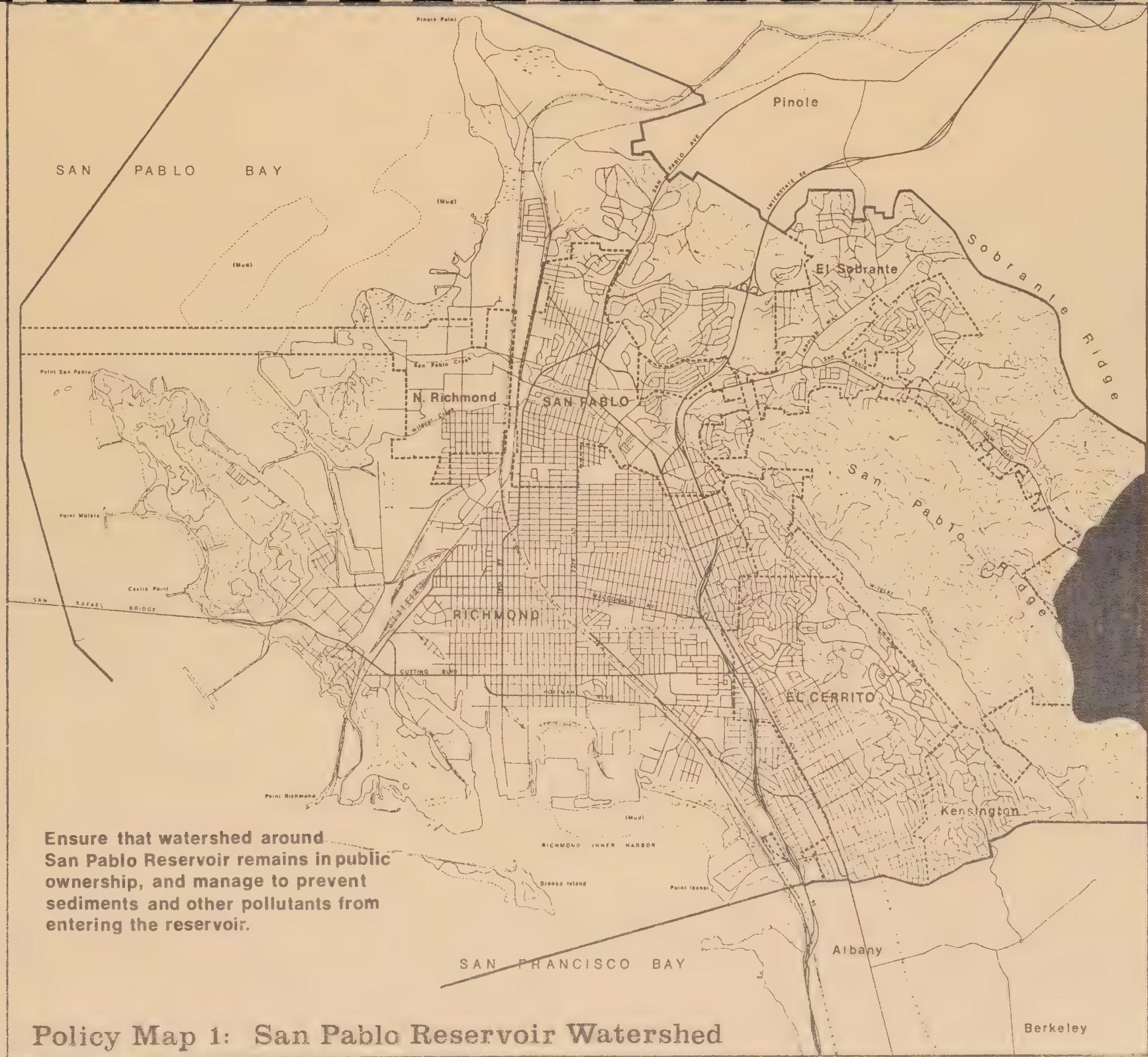
Such water should be utilized by all appropriate users, in particular, by industry.

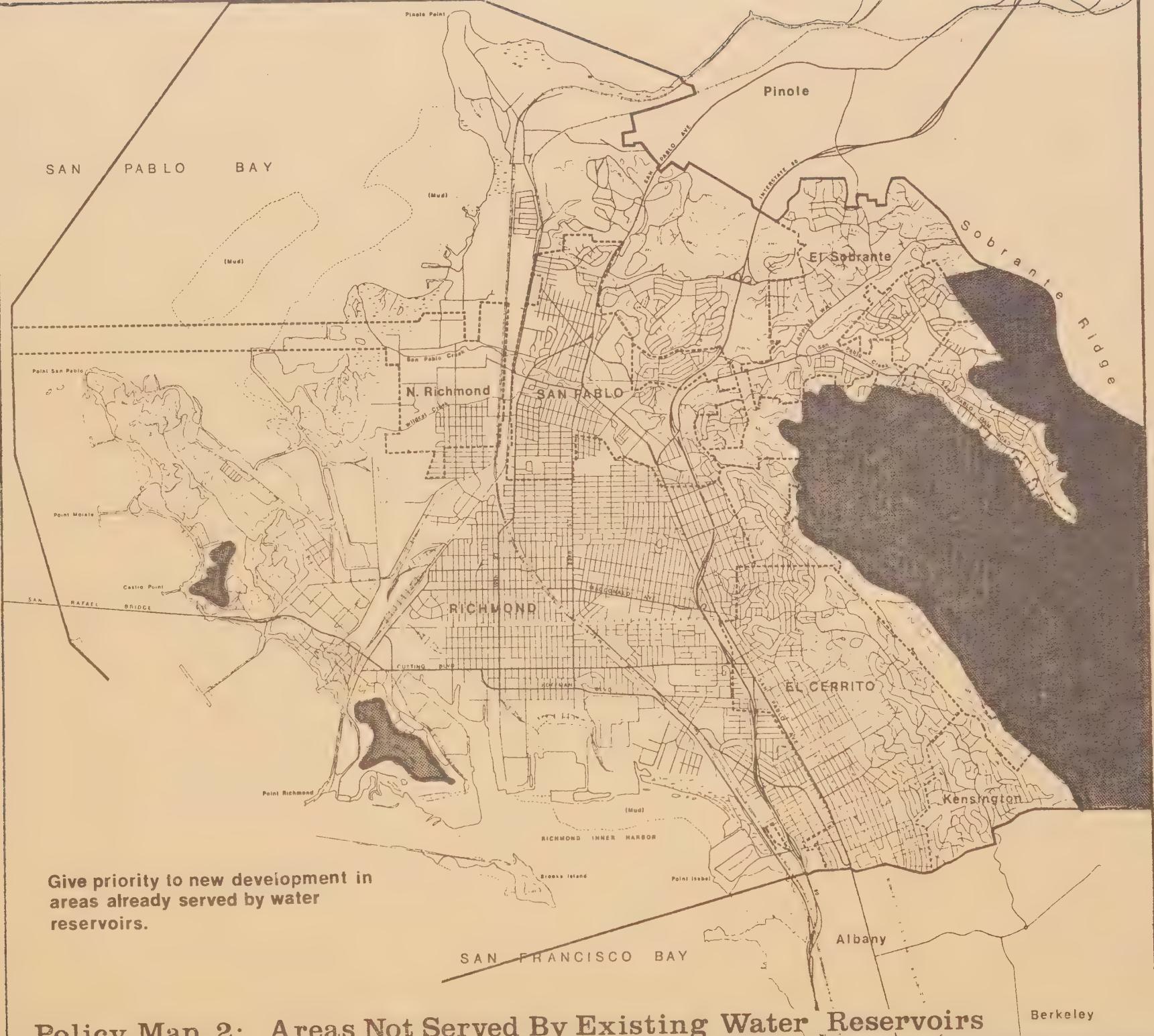
B. All reasonable measures that would encourage lower per capita water use should be supported. These measures should include:

- 1) Structuring water rates to encourage efficient use.
- 2) Undertaking an expanded consumer education program, including use of television and radio.
- 3) Encouraging Planning and Public Works Departments to minimize water requirements in the landscaping of new public and private development, such as by using native plants. (See Wildlife and Vegetation Policy No. 5).
- 4) Undertaking a study by the Building Departments of the three cities of changes in local codes that would help to conserve water.

3. To preserve local runoff from deterioration, the watershed around San Pablo Reservoir should remain in public ownership and should be managed so as to prevent sediments and other pollutants from entering the reservoir. (Policy Map 1) (Open Space for Public Health and Safety).

4. To minimize costs of public services, preserve open space, and reduce air pollution, priority for new development should be given to areas already served by water tanks or reservoirs (Policy Map 2). All new storage tanks should be sized to meet population densities proposed in the area's general plan. Local jurisdictions should ensure that their plans are up to date and reflect the desires of the community. (See Water Pollution Policy No. 5).





Give priority to new development in areas already served by water reservoirs.

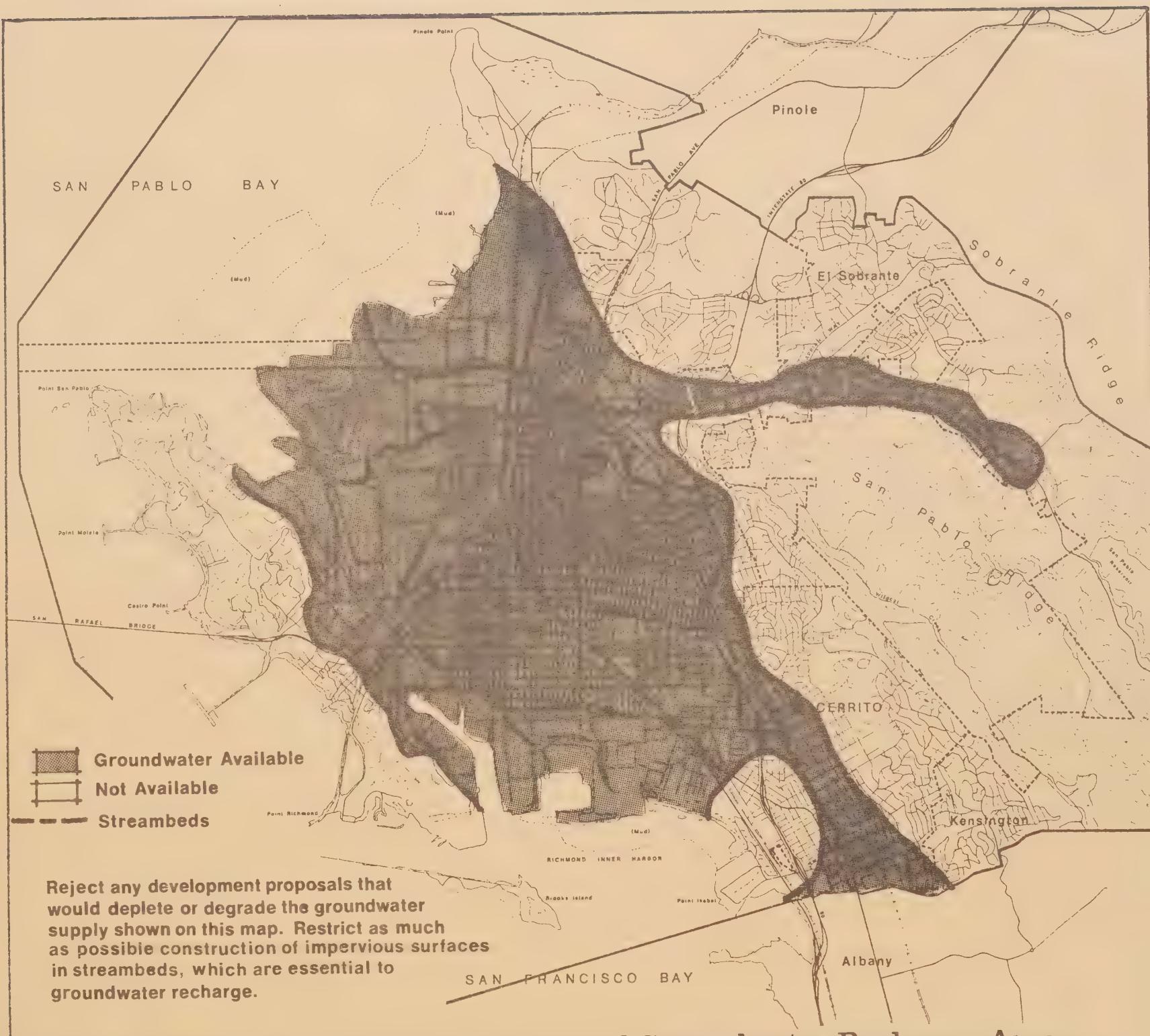
GROUNDWATER

1. Findings.

1. Groundwater is found in the flat part of the study area, chiefly near North Richmond and western San Pablo. The groundwater is a limited resource and could yield at most perhaps one million gallons of water per day. However, the groundwater basin is very shallow and is extremely susceptible to pollution and overuse, which could cause sea water intrusion and subsidence of the land. Liquid disposal of wastes and deep dredging could also damage the supply. Thus, the local groundwater supply is useful chiefly as an emergency supply in case of disaster or water shortage and for various supplemental uses, such as irrigation.
2. To maintain the groundwater supply, the basin must be recharged each year from "groundwater recharge areas." No studies have been completed to discover specific areas of groundwater recharge in the Tri-Cities Area. However, recharge usually occurs in stream channels and in floodplains.
3. No agencies in the area regularly monitor the quality and quantity of the groundwater supply. The Richmond Coastline Plan proposes, however, to protect the aquifer from careless development.

2. Policies.

1. Because the groundwater supply could be vital to the community in case of earthquake or other emergency, it should be protected against depletion or degradation. Any development proposals which would deplete or degrade the supply should be rejected. In particular, construction of impervious surfaces should be restricted in streambeds, which are essential to groundwater recharge (Policy Map 3). Underground disposal of liquid wastes should be prohibited. If dredging is proposed, a study should be made to determine whether damage to the aquifer might result. (Open Space for Managed Production of Resources).
2. To ensure that groundwater quality is adequately monitored and protected, a study should be made to determine the maximum safe yield from the aquifer. The County Health Department or other appropriate agency



Policy Map 3: Groundwater Supply and Groundwater Recharge Areas

GROUNDWATER

should be assigned to monitor regularly well levels and groundwater quality. If deterioration does occur, appropriate agencies should take action to protect the groundwater resource.

3. All cities in the area should ensure that at least two sources of water are available in case of natural or other disaster. The location of wells should be included in disaster plans, and residents should be notified where drinking water will be available.

SURFACE
WATERWAYS,
DRAINAGE,
AND FLOODING

1. Findings.

1. Natural surface waterways perform a wide variety of functions. A creek and its vegetation will support wildlife, reduce bank erosion, promote percolation of water into the ground, provide a visual break in an urban area, and may serve as a link between recreation areas. Many creeks in the Tri-Cities Area retain natural features that may perform valuable functions. None of the creeks contain enough water to make possible water-oriented recreation without supplemental water sources.

2. Urban development has major effects on natural waterways. Development upstream increases the volume of water in the stream, resulting in bank erosion and loss of vegetation upstream, and increased flood frequency and silting downstream. The increase in runoff is particularly great when areas with steep slopes and native woodlands are developed.

3. Development downstream within the floodplain is subject to damage from flooding and also may cause further flooding and erosion. Downstream development increases erosion by building too close to the creek, by irrigating the creekbanks, and by concentrating runoff at points over the banks. The illegal dumping of litter, fill, and other waste materials into the creeks increases flooding by creating debris jams which restrict the flow of water.

4. Engineered flood control channels are most commonly used to control problems of flooding and erosion. While these channels do control flooding, they destroy many of the natural features of the creek. Erosion control structures, culverts, and other spot improvements are also used to control flooding and erosion. Because they affect the flow of water upstream and downstream, they have in many cases actually accelerated erosion.

5. Two methods may be used to reduce flooding and erosion without destroying natural waterways. A floodplain management program is the least costly way to reduce flood damages. It involves regulating land use in floodprone areas and requiring developers to flood-proof their property in order to minimize damage from flooding. Floodplain management is most useful in areas

SURFACE
WATERWAYS,
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AND FLOODING

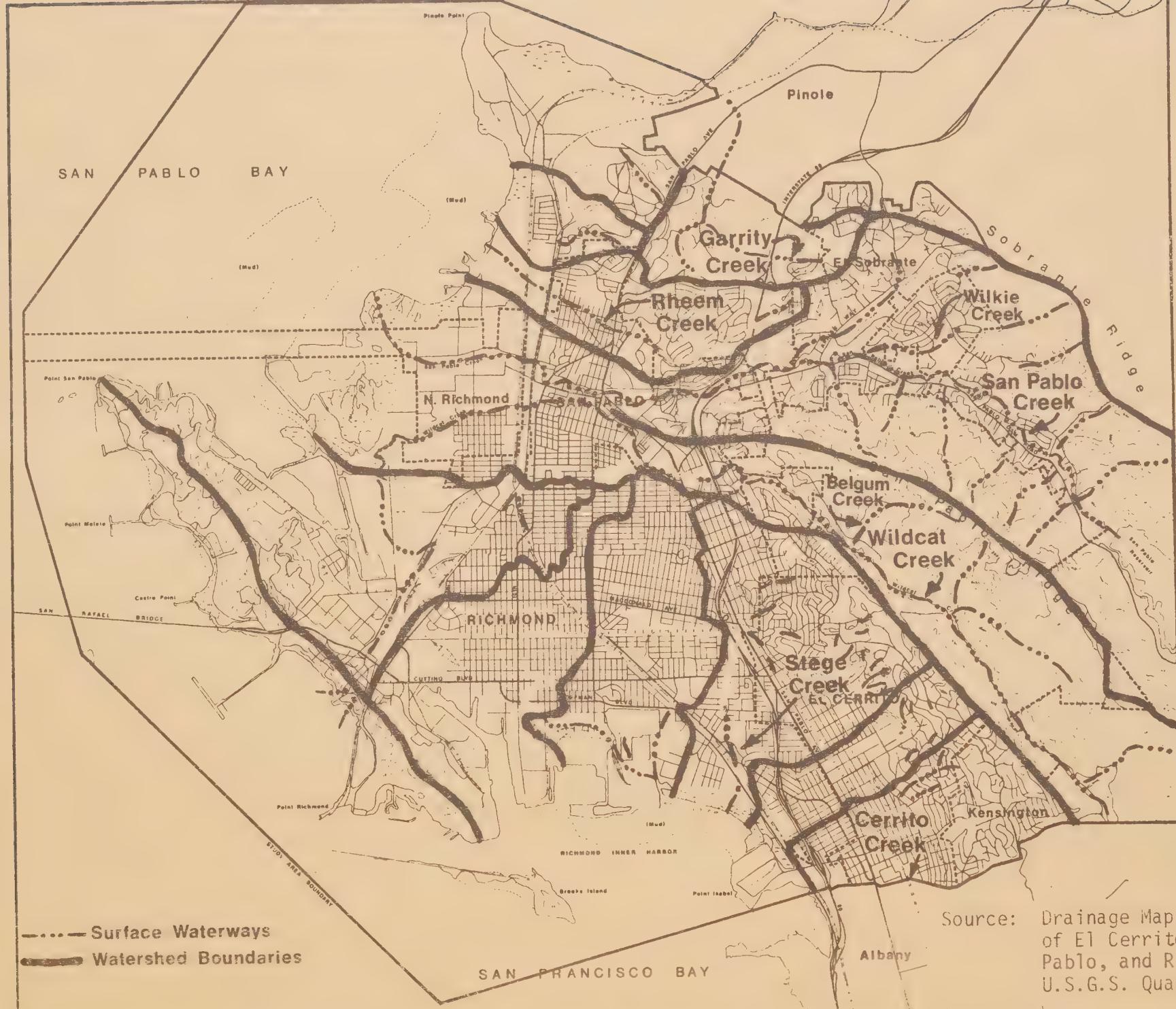
that are not yet built up. Engineering devices such as detention basins can also be used to control runoff from upstream areas. However, these methods are difficult to use on steep slopes and thus are not commonly used in this area.

6. Watersheds and surface waterways in the Tri-Cities Area are shown on Information Map 6. The watershed is the entire area that drains into a creek and identifies the area that may be contributing to flooding or erosion in a creek.

7. The U. S. Army Corps of Engineers and Soil Conservation Service will complete precise maps of the flood-prone areas in the three cities by July 1, 1973.

8. The most serious flooding in the Tri-Cities Area occurs on downstream portions of Wildcat and San Pablo Creeks.

- a. West of the railroad tracks, the channels of San Pablo and Wildcat Creeks are inadequate to pass floods with a likelihood of occurring of even 30 percent. Frequent flooding in the North Richmond community causes property damage, health hazards, and low community morale; further residential development is impossible in the area.
- b. Flooding is frequent in San Pablo only within a few blocks of the railroad tracks. Much of the developed area of the city, however, lies within the 100-year floodplain.
- c. Urban development in the upstream portions of the San Pablo and Wildcat Creek watersheds may increase downstream flooding.
- d. The Army Corps of Engineers, working with the cities of Richmond and San Pablo and with the North Richmond Joint Agency Committee, has prepared a plan for flood control on San Pablo and Wildcat Creeks. There is community concern that the creeks remain in a largely natural state. The flood control plan has attempted to retain the creeks in a largely natural state. Where this is impossible, the



Information Map 6: Watersheds and Surface Waterways

SURFACE
WATERWAYS,
DRAINAGE,
AND FLOODING

plan proposes mitigating measures to restore the use of the creeks for open space and recreation.

9. Minor flooding occurs near Cerrito and Rheem Creeks and in some areas where storm drainage is inadequate. All three cities have adopted priority programs and levy a tax which is used to construct storm drainage improvements.

10. No master storm drain plans have been completed for steep upstream parts of the San Pablo and Wildcat Creek watershed. As a consequence, some new developments may generate runoff which cannot be carried by existing storm drain facilities. Master storm drain plans might enable local governments to reduce the impact of new development on natural waterways.

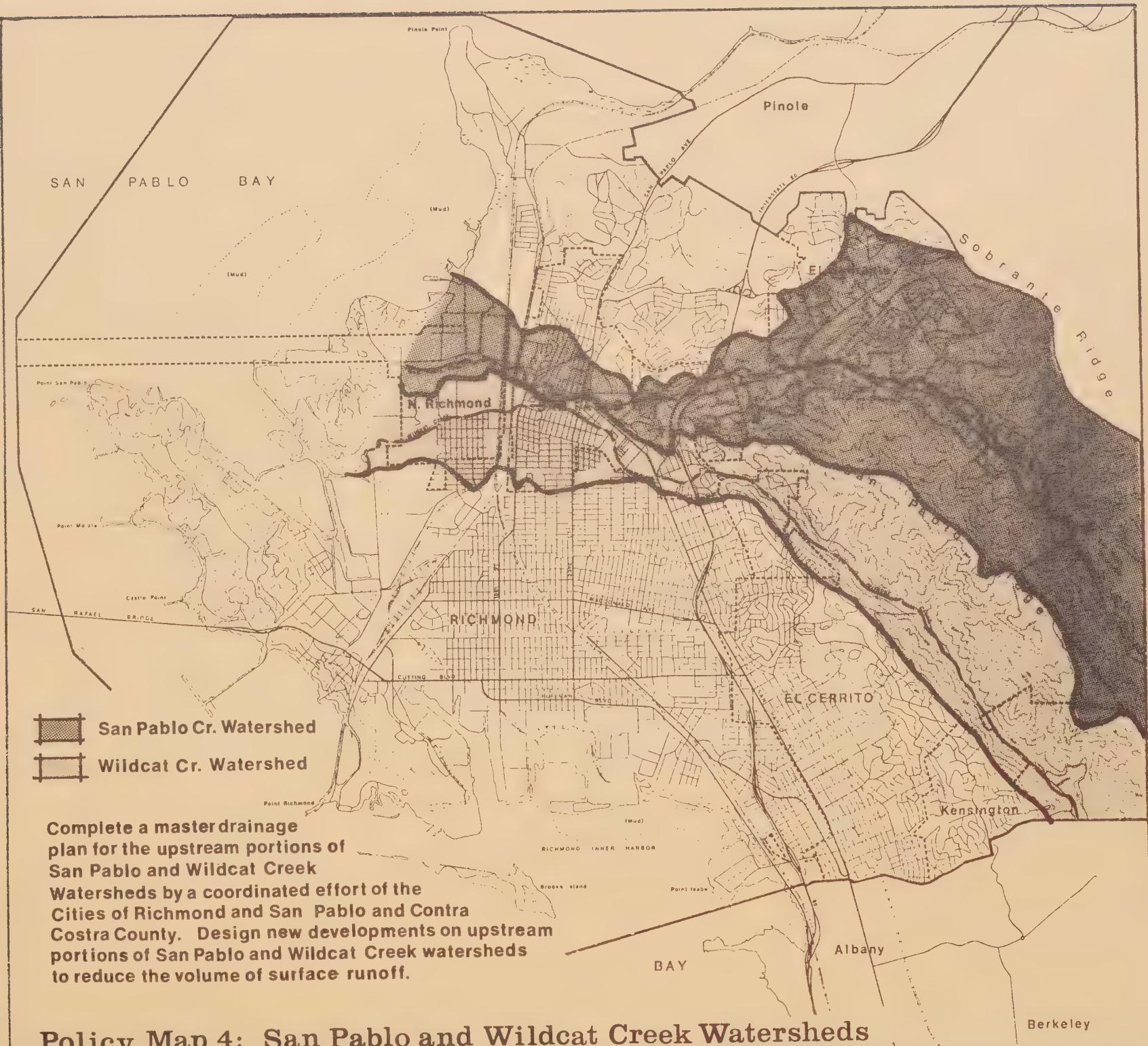
11. Development close to many creeks in the Tri-Cities Area may be threatened by erosion. In particular, serious erosion has been noted in parts of Wildcat, Wilkie, and San Pablo Creeks.

12. El Cerrito, Richmond and San Pablo all qualify for federal flood insurance. Residents who do not buy the insurance will receive less benefits than those who do in the event of a disaster, and residents of buildings built in El Cerrito's floodplain after March 1971 cannot buy the federally subsidized insurance. Relatively few residents seem to be aware of the program. The cities may be required to adopt additional floodplain regulations in connection with the flood insurance program.

2. Policies.

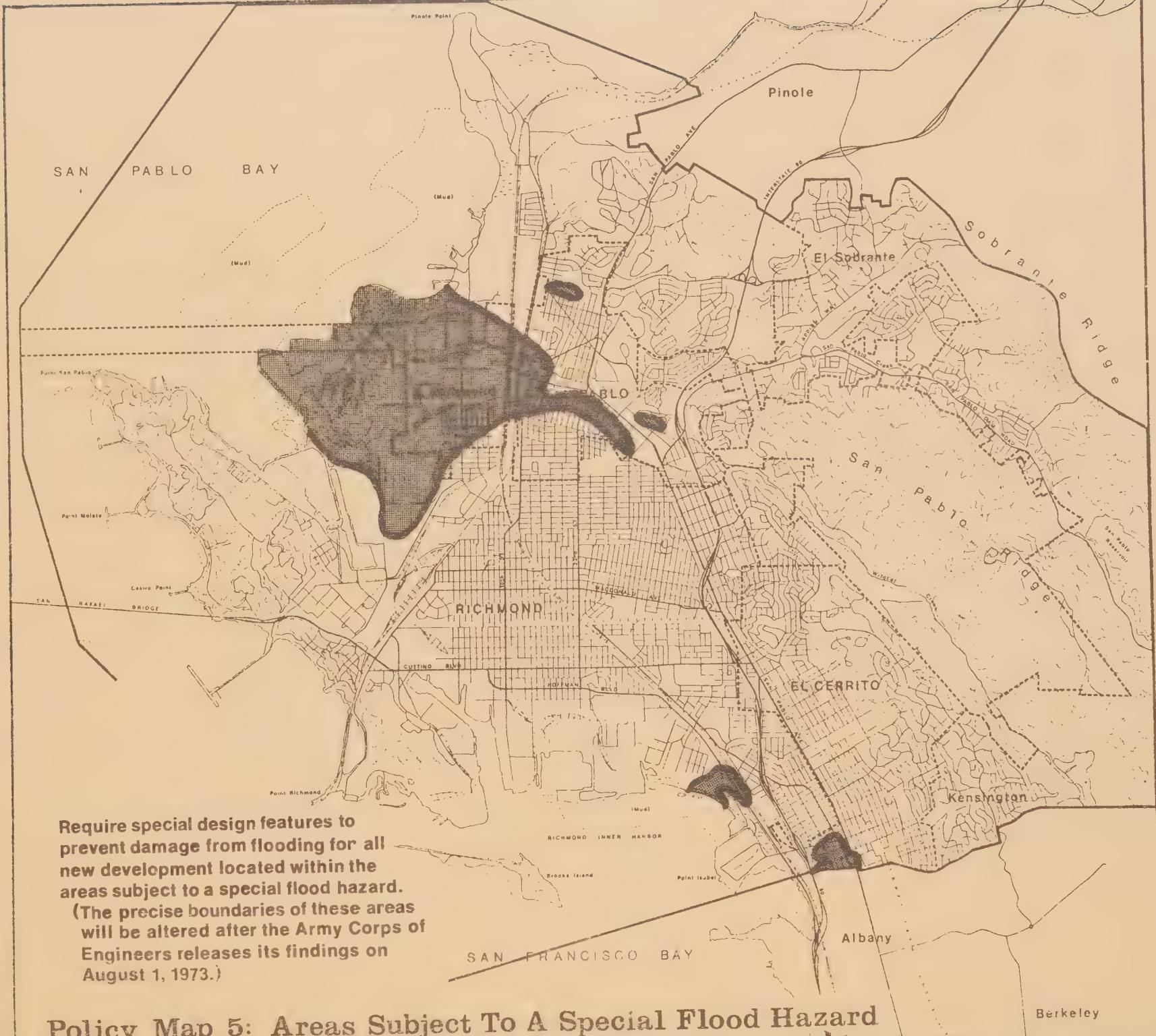
1. To prevent flooding, erosion, and destruction of natural waterways, to reduce public costs for flood control works, and to preserve scenic quality, runoff from new development, particularly on San Pablo and Wildcat Creeks, must be strictly controlled. To do this, the following methods should be utilized.

a. A master drainage plan for the upstream portions of the San Pablo and Wildcat Creek watersheds should be completed by a coordinated effort of the cities of Richmond and San Pablo, and Contra Costa County (See Policy Map 4).



SURFACE
WATERWAYS,
DRAINAGE,
AND FLOODING

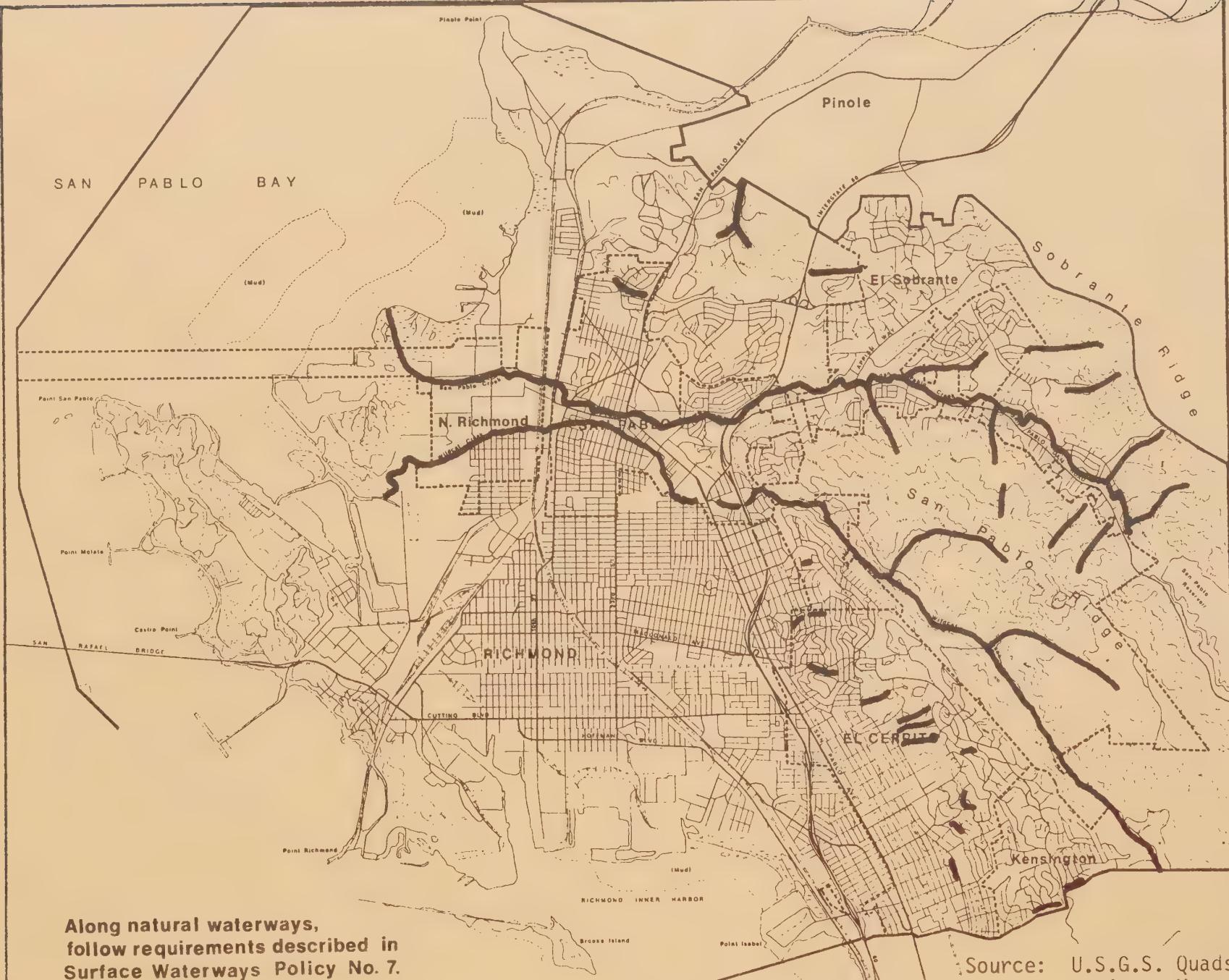
- b. In the absence of a master drainage plan, drainage plans for any commercial, industrial, or large residential development should be submitted to the County Flood Control District and to local public works departments within the watershed of the project to ensure that sufficient storm drainage facilities are available on and off the site to carry runoff generated by the development. If local agencies do not have sufficient information to evaluate the project, the developer may be required to submit a study showing the effect of the development on downstream properties and suggesting means by which the effect could be reduced.
 - c. New developments on upstream portions of the San Pablo and Wildcat Creek watersheds should be designed to reduce the volume of surface runoff by minimizing removal of native woodlands, maximizing vegetated open space, and designing surface and subsurface drainage to retard peak runoff (See Policy Map 4).
 - d. Any district established for flood control purposes on San Pablo Creek should include all upstream properties below San Pablo Dam which contribute runoff to the creek (See Wildlife Policy No. 2, Soil Policy No. 3, Scenic Resources Policy No. 1).
2. To prevent minor flooding from inadequate storm drainage facilities the following policies should be followed:
- a. With assistance from management and planning grants, the cities of West Contra Costa County and the County should work together to develop uniform storm drainage standards.
 - b. The local jurisdictions should budget an annual sum to correct local drainage problems.
3. Special design features to prevent damage from flooding should be required for all new development located within the area subject to a special flood hazard, as determined by flood insurance studies being undertaken by the Army Corps of Engineers and Soil Conservation Service (See Policy Map 5).



Policy Map 5: Areas Subject To A Special Flood Hazard

SURFACE
WATERWAYS,
DRAINAGE,
AND FLOODING

4. Flood control measures adequate to reduce the damage from a 100-year flood to a level acceptable to the community should be installed on San Pablo and Wildcat Creeks. Because Brookside Hospital is the only facility in the West Contra Costa area providing public emergency care, flooding and erosion must be prevented at the hospital. Any flood control facilities built in the creeks should maintain the natural qualities of the creeks as much as possible. (See Wildlife and Vegetation Policy No. 3 and Scenic Resources Policy No. 5).
5. El Cerrito, Richmond, and San Pablo should ensure that all eligible residents are informed of the federal flood and mudslide insurance program and that they are aware of possible consequences of not purchasing insurance. Means such as newspaper articles or a direct mailing should be used.
6. Laws prohibiting the dumping of litter, fill, and waste materials into the creeks should be strictly enforced, and the public should be educated about the flooding and health hazards associated with such dumping.
7. To prevent erosion of creek banks, to preserve wildlife habitat, to protect the scenic quality of the creeks, and to encourage public access, the following policies should be followed for development adjacent to natural waterways as shown on Policy Map 6:
 - a. No retaining walls or other improvements that will change the flow of water should be constructed in waterways without approval from a qualified civil engineer under the jurisdiction of the local public works departments.
 - b. Foundations should be set back from waterways a sufficient distance to prevent undercutting. This distance should be determined by a soils engineer for all commercial, industrial, and multi-family residential developments. For single-family homes and other minor construction an administrative review by the Public Works Department should be required to inform the builder of possible erosion hazards and to determine a safe setback from the waterway.
 - c. Improvements adjacent to the waterways, such as



Along natural waterways,
follow requirements described in
Surface Waterways Policy No. 7.

Source: U.S.G.S. Quads;
Drainage Maps, City
of El Cerrito; Reinhard
Jockel, Vegetation Map;
Field Work.

Policy Map 6: Natural Waterways

Berkeley

SURFACE
WATERWAYS,
DRAINAGE,
AND FLOODING

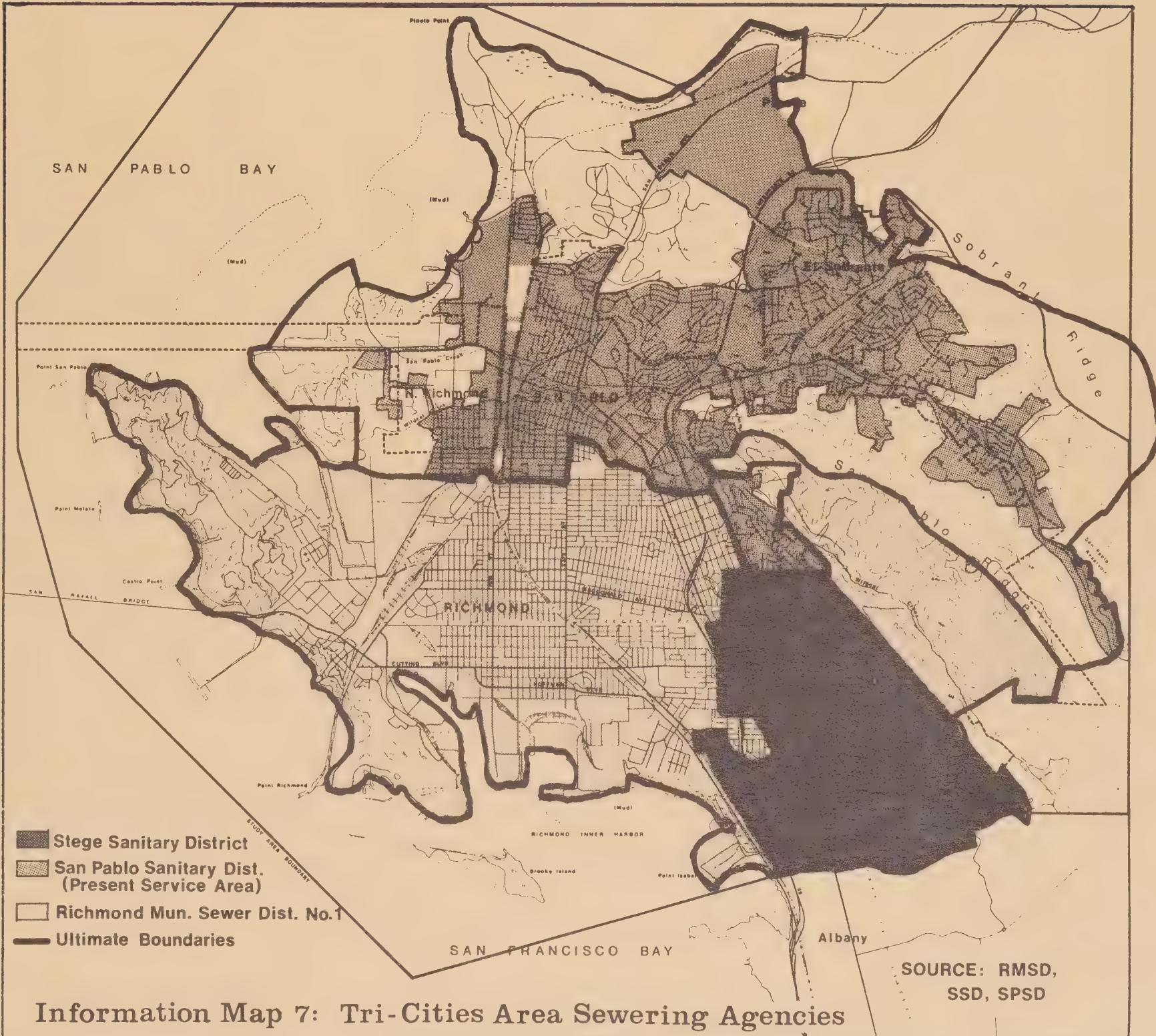
buildings and parking lots, should be designed so as not to create points of concentrated water flow over the bank. Irrigation should be discouraged adjacent to the waterway.

- d. All those selling undeveloped lots next to waterways should be required to inform buyers of possible erosion hazards and setback requirements.
 - e. Public access to these waterways should in general be encouraged. However, public access should be limited in residential areas. New and existing commercial, institutional, and large apartment projects and large subdivisions should be encouraged to provide public or semi-public access to the creeks. The local agency should, however, assume liability if public access is required. All new large developments along these creeks should be subject to design review to ensure that they are compatible with the creek.
 - f. Wildlife and Vegetation Policy No. 1 also applies to these creeks.
8. Appropriate public agencies should be encouraged to acquire hazardous or unbuildable creekside lots as they are marketed and to convert them to low-density public uses, such as picnic areas.
9. Local agencies should include plans for community parks along the creeks wherever possible. Plans for the creeks should include community park facilities wherever possible. However, other park facilities may be more urgently needed than those which can be located along the creeks and should be given higher priority.
10. Citizens, volunteer groups, and organizations should be encouraged to participate in programs to clean, preserve, and enhance natural waterways.

WATER QUALITY

1. Findings.

1. Protecting water quality in San Francisco Bay and in local streams is the responsibility of a large number of local, regional, state and federal agencies.
2. The Regional Water Quality Control Board has stated that the beneficial uses of San Pablo and San Francisco Bays in the Tri-Cities Area are industrial water supply; recreation, including body contact sports; aesthetic pleasure; fish and wildlife habitat; and navigation. Water quality in San Francisco Bay is presently good enough for all those uses except body contact sports. In San Pablo Cove between Point San Pablo and Point Pinole, the water is occasionally too contaminated for swimming. Water quality in the Bay, however, is not good enough to provide for the taking of edible shellfish, which concentrate bacteria in their bodies. Water quality must be greatly improved before it will be possible to eat shellfish which grow in the Bay.
3. Due to illegal dumping of waste into local streams, they are not considered safe for drinking or body contact. However, no raw sewage or other substance dangerous to public health flows into the creeks.
4. In the Tri-Cities Area pollutants enter the Bay from municipal and industrial dischargers and, to a minor extent, from stormwater. Municipal and industrial dischargers must meet strict standards established by the Regional Water Quality Control Board. Stormwater is unregulated. Additional standards related to the temperature of the discharge may be required this year.
5. There are three municipal sewage agencies in the Tri-Cities Area: the Richmond Sanitary District, the San Pablo Sanitary District, and the Stege Sanitary District. Both the Richmond and San Pablo Districts give their waste secondary treatment; the Stege District pumps its waste to the East Bay Municipal Utility District primary treatment plant located in Oakland (See Information Map 7). The Richmond Plant meets present water quality criteria; the San Pablo Plant has been required to remove excess acid; while the East Bay Municipal Utility District will complete a secondary treatment plant by 1975.
6. Due to infiltration of storm water into sewer lines,



Information Map 7: Tri-Cities Area Sewering Agencies

WATER QUALITY

all three districts experience considerable increases in their sewage flow in wet weather. Much of the excess flow is given only primary rather than secondary treatment. During storms, some sewage may bypass treatment altogether.

7. Within the next 10 to 15 years, the State Water Resources Control Board may require the consolidation of many of the sewage treatment facilities in the West Contra Costa Area. The most recent plan calls for combining all industrial and municipal facilities, except Stege, into two plants, one at Richmond, the second at San Pablo.

8. Several industries now discharge liquid wastes into the Bay. They must meet water quality standards and are required to conduct a self-monitoring program. Standards are periodically reviewed.

9. A number of areas, including parts of El Sobrante, Point Pinole, Wildcat Canyon, and Point San Pablo, are unsewered and utilize septic tanks or holding tanks; Point Molate maintains a small sewage plant. The Point Molate plant does not meet present water quality standards. Many septic tanks have developed serious problems.

2. Policies.

1. Support and encourage efforts of the San Francisco Bay Water Quality Control Board to improve the quality of Bay waters to a standard pure enough to use for water contact sports and for edible shellfish.

2. Review existing standards for municipal and industrial liquid waste disposal, and revise them if necessary to provide the best possible protection from chemical, organic, and thermal pollution for the waters of the area.

3. Initiate a study to determine the precise load of pollutants in stormwater runoff. If found to be appropriate in the total context of the effect to the Bay under runoff conditions, regulate stormwater discharges to maintain water quality.

4. The municipal sewage agencies should initiate a program to detect leaks and maintain sewage lines in order to reduce the infiltration problem. All sewage should

WATER QUALITY

require at least secondary treatment before being released to the Bay.

5. Sewer lines should be extended to unsewered but developed areas where waste disposal problems have developed, particularly to parts of El Sobrante. All new sewer lines should be sized to meet only population densities proposed in the area's general plan. Local jurisdictions should ensure that their plans are up-to-date and reflect the desires of the community (See Water Supply Policy No. 4).

6. Plans for consolidation of sewage facilities should be monitored, and improvements should be planned to minimize the cost of consolidation.

HARBORS

1. Findings

1. The Richmond Coastline Study has thoroughly studied the harbors in the Tri-Cities Area in connection with its findings and policies regarding ports, marinas, and marine terminals. These findings and policies have been adopted by the Richmond City Council.

2. Policies

1. The findings and policies regarding ports, marinas, and marine terminals adopted in the Richmond Coastline Plan are included in this Conservation Element by reference to its policies regarding conservation of harbors.



EARTH RESOURCES

SECTION 2: EARTH RESOURCES

SOILS AND TOPOGRAPHY

1. Findings.

1. Soil types in the Tri-Cities Area have been mapped in detail by the Contra Costa County Resource Conservation District.
2. Soils have many properties which may affect their suitability for urban development. In the Tri-Cities Area, some of the most important area:
 - a. Soil depth. Shallow soils are susceptible to erosion, difficult to revegetate, and expensive for foundations.
 - b. Soil permeability, the degree to which a soil may be penetrated by water. Most of the soils in this area are unsuitable for septic tanks because they are not very permeable to water.
 - c. Shrink-swell potential, the tendency of a soil to shrink when dry and to swell when wet. Soils with high shrink-swell may damage building foundations. Such soils cover over half the study area.
 - d. Erosion hazard. Slopes with over 30 percent slope have a high erosion hazard.
3. In the Tri-Cities Area, man has accelerated the erosion of land in three ways: through overgrazing of cattle on steep slopes; through creating bare unprotected slopes on construction sites; and by causing greater runoff and increasing the risk of fire in urban areas.
4. Erosion causes four kinds of damage.
 - a. The site itself is damaged, reducing its productivity as grazing land or causing expensive damage to construction sites.
 - b. Stream channels are more likely to become silted, reducing their capacity and causing floods.
 - c. Water quality is impaired.
 - d. Stream banks are more likely to erode.

SOILS AND
TOPOGRAPHY

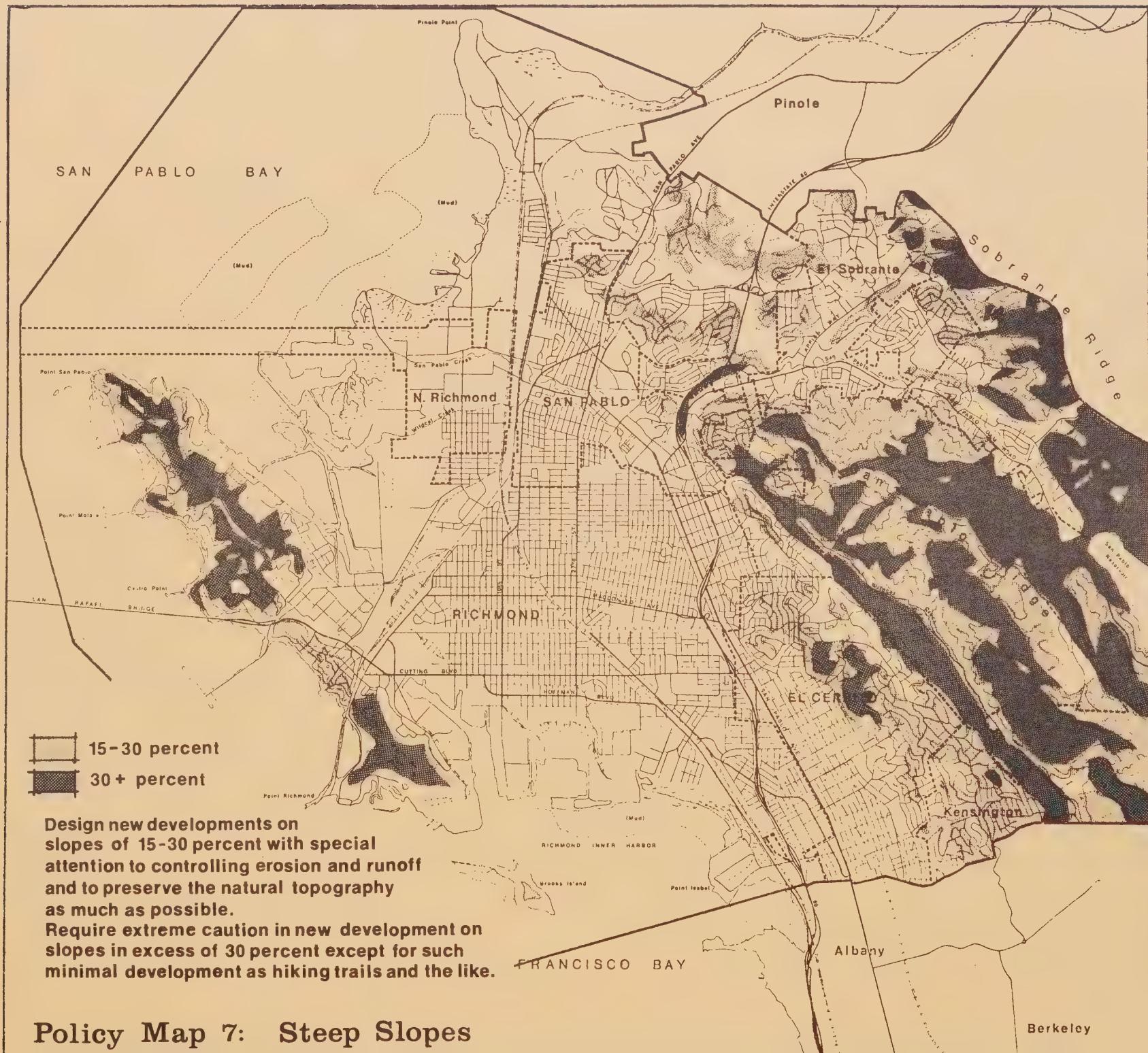
5. Upstream erosion can result in high costs to downstream users. These costs include: dredging of San Francisco Bay and of flood control channels; damages due to flooding and erosion of creek banks; loss of fish and wildlife.
6. A wide variety of measures are available to control erosion. On construction sites, these include: limiting development on steep slopes; clustering development; following recommended construction practices; using mechanical and vegetative measures.
7. All three cities and Contra Costa are presently able to require erosion control measures in connection with local ordinances and grading permits. However, erosion control measures are not always required for large developments. The Richmond Coastline Plan has suggested that erosion control measures be required for all new developments on sloping land.
8. In general, slopes up to 15 percent are most suitable for most kinds of development; those of 15 to 30 percent are very costly to develop; those over 30 percent developable only with great difficulty. As slope increases, such factors as erosion, runoff and septic tank limitations increase geometrically.
9. Much of the undeveloped land in the Tri-Cities Area consists of slopes of 15 percent and over. The Richmond Coastline Plan has suggested that, in the coastline area, development be restricted on slopes of 25 percent or more.

2. Policies.

1. Cities should identify areas with known soils problems, using information included in the 1973 Tri-Cities Seismic Safety Study and Environmental Analysis. In such areas the Building Department should require soils investigations for all new development. All those applying for building permits should be informed of potential soil problems when applying for the permit.
2. To prevent deterioration of water quality and danger to public health, all new developments should be required to hook up existing sewage systems, or, if not available, to use self-contained plants (See Water Quality Policy No.5).

SOILS AND
TOPOGRAPHY

3. To prevent flooding and destruction of natural waterways, to maintain water quality, to reduce public costs for flood control works, and to prevent damage to construction sites, soil erosion must be controlled. To do this the following policies should be implemented:
- a. The number of livestock grazed should be balanced with the carrying capacity of the land. Property owners should be encouraged to seek technical assistance to restore the range and to prevent overgrazing.
 - b. Grading permits should be required for grading in all areas of each city.
 - c. An erosion control plan and revegetation plan should be required as part of all grading permits, except where specifically exempted by the Public Works Department. In addition, runoff should be controlled and released safely downstream. (See Waterways Policy No. 1; Wildlife Policy No. 2; Scenic Resources Policy No. 1).
 - d. Development on slopes of 15 to 30 percent should be designed with special attention to controlling erosion and runoff and to preserve the natural topography as much as possible. Cuts and fills and removal of vegetation should be minimized (See Policy Map 7).
 - e. Slopes in excess of 30 percent should require extreme caution in construction except for such minimal development as hiking trails and the like (See Policy Map 7). (Open Space for Preservation of Natural Resources, Outdoor Recreation, and Public Safety).



Policy Map 7: Steep Slopes

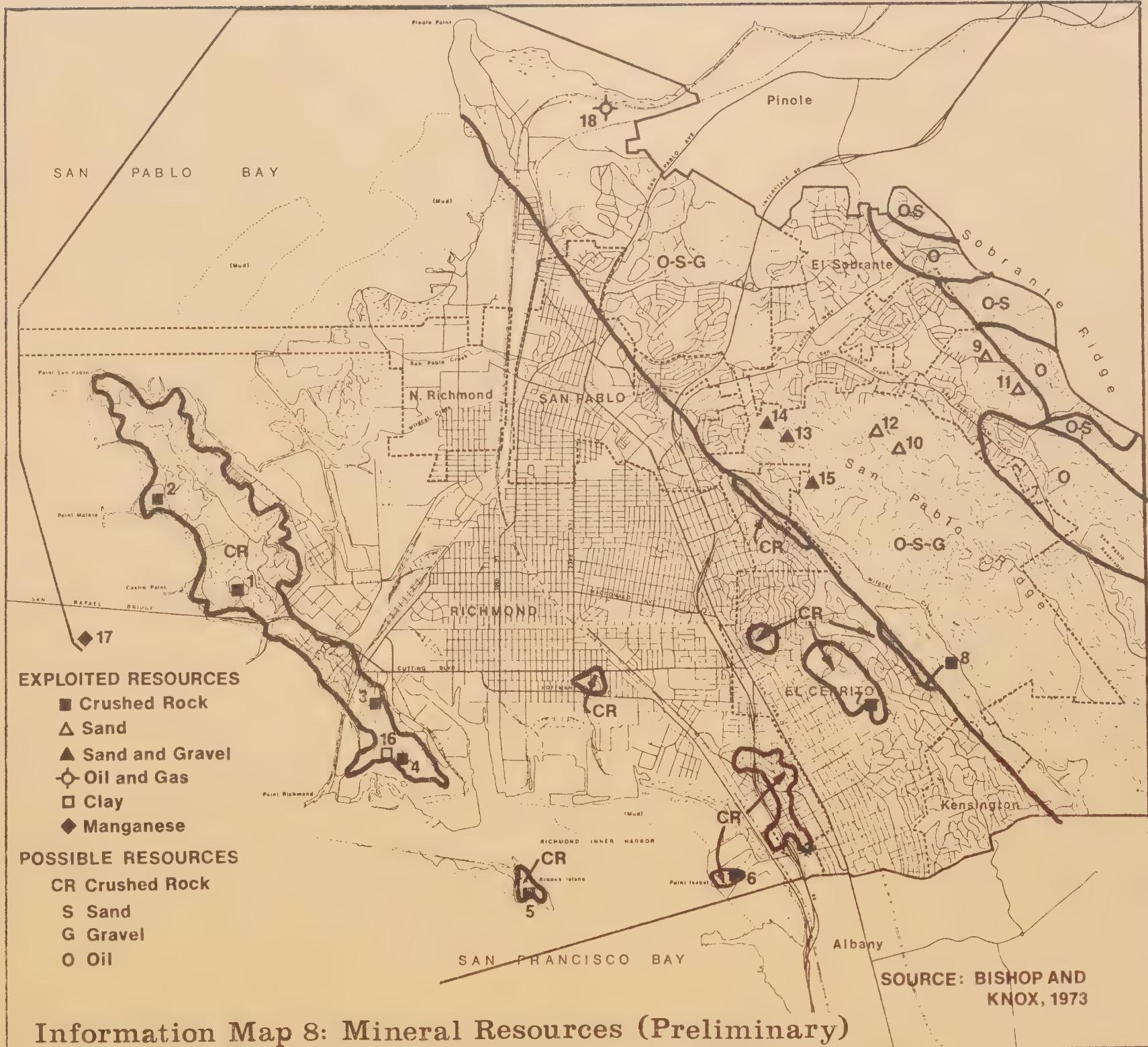
MINERAL
RESOURCES

1. Findings.

1. Portions of the Tri-Cities Area, including Brooks Island, Point Isabel, the Berkeley Hills, and the San Pablo Peninsula, are made up of rocks that could be used as crushed rock in construction (See Information Map 8). Similar materials are also available in Sonoma and Napa Counties, however,
2. The other minerals present in the study area are either of relatively minor importance or of inferior quality.
3. If present growth rates continue, the Bay Area will deplete its sand and gravel resources within thirty years, causing a dramatic rise in construction costs.
4. Urban development is in general incompatible with mineral production; nearby urban development may prevent the use of a mineral resource.
5. Areas which have been mined may be rehabilitated and used for other purposes.

2. Policies.

1. Although out of the jurisdiction of this study, accurate projections of the need for minerals should be carried out based on current population projections. Areas of critical importance as mineral resources should be so designated by the state or other appropriate agency.
2. Mineral production should be planned and carried out so as to avoid destruction, pollution, or degradation of surrounding communities, land, air, and water. Buffers, vegetation, water treatment, dust control, and other measures may be required to protect the physical and social environment.
3. After mineral extraction has been completed, land used for mineral production should be revegetated and restored or improved for other appropriate uses.
4. Brooks Island, Point Isabel, and the Berkeley Hills are unsuitable for any further extraction of crushed rock



Information Map 8: Mineral Resources (Preliminary)

MINERAL
RESOURCES

products. The San Pablo Peninsula is visually important because it serves as a backdrop and gateway to West Contra Costa County. The possibility of phasing out, reshaping, and revegetating existing quarries should be studied.

GEOLOGY AND
GEOLOGIC
HAZARDS

1. Findings.

1. The Tri-Cities Seismic Safety Planning Study has sponsored an investigation into geologic hazards in the Tri-Cities Area. The Study has included a detailed investigation of slope stability, earthquake faults, tsunami hazard, ground liquefaction, and ground response.
2. The Seismic Safety Citizens Advisory Committee is considering policies to reduce the danger to the public from geologic hazards. It plans to release its findings and policies by September 1, 1973. At that time the cities of San Pablo, Richmond, and El Cerrito will consider these policies for inclusion in the Seismic Safety Element.

2. Policies.

1. In connection with their adoption of the Seismic Safety Plan, the cities of El Cerrito, Richmond, and San Pablo should adopt policies for regulation of land use in geologically hazardous areas. The policies of this plan should be revised, where necessary, to include the policies of the adopted Seismic Safety Element.
2. In the interim before the adoption of the Seismic Safety Plan, the initial findings regarding geologic hazards should be used to assist in the designation of open space land.



WILDLIFE
AND VEGETATION

SECTION 3: WILDLIFE AND VEGETATION

WILDLIFE AND
VEGETATION

1. Findings.

1. Vegetation in the Tri-Cities Area

- a. protects the soil from erosion and slides;
- b. reduces wind velocities and moderates climate;
- c. provides food and shelter for wildlife;
- d. provides visual relief from urban development, and
- e. adds oxygen to the atmosphere.

2. Human benefit from the fish and wildlife of the area includes food, economic gain, recreation, scientific research, and education.

3. A number of different natural and introduced plant communities are present in the Tri-Cities Area. The most important plant communities in the Area are the marshes and mudflats along San Francisco Bay's shore and riparian woodland, willows, buckeyes, bays and alders found along streams in the area. According to the San Francisco Bay Conservation and Development Commission, the salt marshes and mudflats produce large quantities of oxygen and either directly or indirectly support most of the Bay's fish and wildlife. Salt marshes also provide a habitat for two endangered animal species, the clapper rail and the salt marsh harvest mouse. The State Department of Fish and Game considers riparian woodland comparable to salt marshes in importance because of the wide diversity of wildlife habitats it provides and the large number of wildlife species it supports.

4. The mixed evergreen forest, composed of live oak, bay laurel, madrone, and buckeye, and the aquatic habitat, the water areas of San Francisco Bay, are rated as having high wildlife value, almost as great as that of the marshes, mudflats and riparian vegetation. None of the forested lands in the area have any value for commercial timber production, however.

5. Coastal scrub, dominated by coyote brush, and oak woodland, scattered oaks in grassland, have moderate wildlife value. However, coastal scrub on San Pablo and Sobrante Ridges provides habitat for a rare snake, the

WILDLIFE AND VEGETATION

Alameda striped racer. Grassland is considered to have low wildlife value overall compared to other native plant communities.

6. Plants which are not native to this area, such as eucalyptus and Monterey pine, have the lowest value for wildlife because many plants and animals have not adapted to living in them. These "introduced" plants also invade native plant habitats, such as grasslands, and often replace more desirable species.
7. Some natural areas in the Tri-Cities Area appear to be particularly valuable either because they contain plant or animal communities unique to this area or because they include particularly good examples of typical plant communities.
 - a. Brooks Island retains a small remnant of native grassland and is a valuable wildlife habitat. Most other grasslands in the Bay Area have been invaded by grass species which are not native to California.
 - b. A small patch of Goldfields, a wildflower usually found in the San Joaquin Valley, is found south of the Mira Vista Country Club.
 - c. A chaparral community, which is usually not found this far north, has been located on Sobrante Ridge.
 - d. Wildcat Canyon contains the best example in the Tri-Cities Area of a mixed evergreen forest and riparian woodland.
 - e. The eucalyptus groves on Point Pinole are used by migrating monarch butterflies.
 - f. Part of the San Pablo Peninsula serves as a deer habitat.
 - g. The Castro Rocks north of the Richmond-San Rafael Bridge are needed by the remaining harbor seals to rest with their pups.
8. Two rare plant species have been located in the Tri-Cities Area. One species is a type of manzanita, and is

WILDLIFE AND
VEGETATION

located in the chapparral community on Sobrante Ridge. The other is a rare wildflower and has been found east of the Mira Vista Country Club. Some other rare plant species exist in habitats similar to those in the Tri-Cities Area. The California Native Plant Society is preparing maps showing the distribution of rare plant species.

9. When native vegetation is removed by man, some wildlife habitat is lost, and thus fewer animals can be supported. Removing vegetation may also increase soil erosion and decrease slope stability, particularly in wooded areas.

10. A water reclamation project being undertaken by the East Bay Municipal Utility District will reduce the flow of water to San Pablo Creek. Effects on vegetation in the downstream section of the creek have not been studied. A flood control project proposed on Wildcat Creek will also remove some riparian vegetation, although equivalent vegetation may be replanted.

11. The kind of plant community determines in large degree the danger of wildfire in the area. In this area, brushland in general presents the most severe fire hazard, grassland is next, and woodland is least hazardous. North-facing slopes, ridgelines, areas under a tree canopy, and areas with poor access are also particularly hazardous.

12. In the Tri-Cities Area, the north-facing slope of Wildcat Canyon and the ridgetop between Wildcat Canyon and El Cerrito are susceptible to the most severe fire hazard. Other hazardous areas are located on ridgetops adjacent to brushland and in areas where tree canopies might spread fire.

13. Fire hazard can be reduced by a variety of methods, including landscaping techniques, brush clearance, and improved access. The East Bay Fire Departments plan to construct a 300-foot wide fuel break on the ridge atop Kensington. This break could cause erosion, reduce wildlife habitat, and damage the appearance of the hills.

WILDLIFE AND
VEGETATION

2. Policies.

1. The salt marshes and mudflats of the study area should be retained in their natural state to the fullest possible extent, as recommended by the Richmond Coastline Plan and the North Richmond-San Pablo Bay Plan. Existing riparian woodlands should also be retained to the fullest possible extent (See Policy Map 8).

(Open Space for the Preservation of Natural Resources)

2. To preserve wildlife habitat and scenic beauty and to prevent soil erosion, removal of vegetation should be minimized in all new developments. In particular, the cutting of mature native woodland trees, especially on unstable slopes and in creek beds, should be controlled (See Policy Map 9). A revegetation plan should be required as part of all grading permits. (See Soil Erosion Policy No. 3 and Scenic Resources Policy No. 1).

3. Native plant species should be used for landscaping purposes wherever possible. A list of suitable native plants should be made available to residents by local Parks and Recreation Departments. Species such as French Broom and Cardoom, which invade plant communities, should not be used. Eucalyptus globulus should not be replanted in areas where they have been removed. (See Water Supply Policy No. 2).

4. The East Bay Municipal Utility District should be requested to study the effect on downstream vegetation of a reduced flow of water on San Pablo Creek. If the flow is reduced, the effect should be monitored by an appropriate agency, such as the State Department of Fish and Game. If harmful effects do occur, EBMUD should be requested to adjust its releases to the creek.

5. Any adopted flood control system should maintain the natural qualities of the creeks as much as possible. In particular, as much of the planted vegetation as possible should consist of native riparian woodland species. In addition, to offset losses of creek vegetation, the quality of existing riparian woodland should be improved by planting and other appropriate measures whenever possible. (See Waterways Policy No. 4 and Scenic Resources Policy No. 5).

6. Specific habitats that are needed to prevent the extinction of any plant or animal species should be



Retain salt marshes, mudflats, and riparian woodlands in their natural state to the fullest extent possible.



**Control the cutting of mature
native woodland trees, especially
on unstable slopes and in
creekbeds.**

Policy Map 9: Native Woodlands

WILDLIFE AND VEGETATION

protected. In the Tri-Cities Area this includes the salt marshes and the Castro Rocks; an area east of Mira Vista Country Club; and Sobrante Ridge. An area of relatively undisturbed brushland large enough to provide a habitat for the Alameda striped racer should also be preserved. (See Policy Map 10). (Open Space for Preservation of Natural Resources).

When maps are completed by the California Native Plant Society showing the distribution of rare plant species, any other habitats shown to be necessary for the preservation of such plants should be reserved as well. (Open Space for Preservation of Natural Resources).

7. Unique plant communities and wildlife habitats should be preserved. These should include:

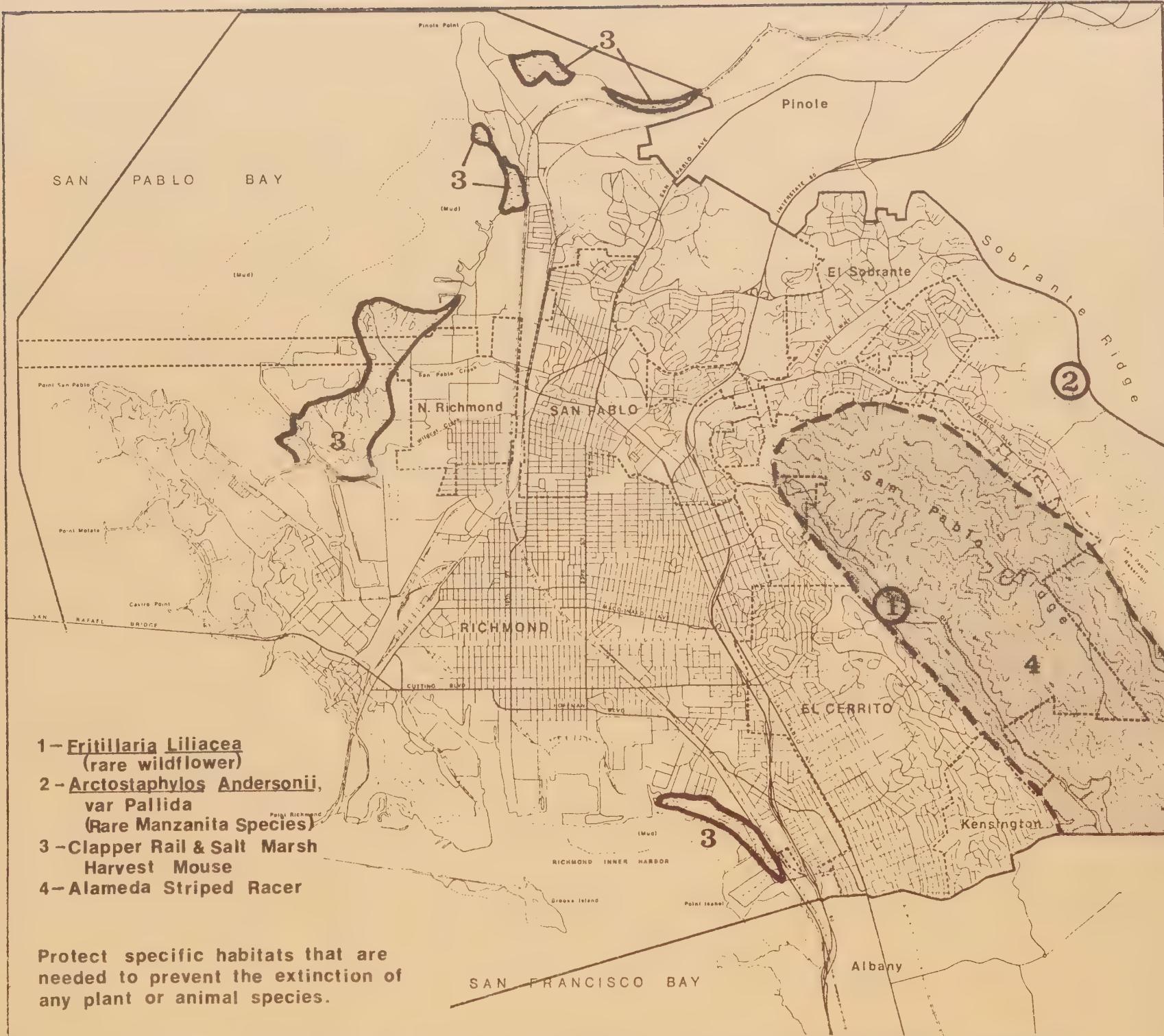
- a. Particularly good examples of typical area habitats, which can be used for classroom study purposes. One such is the mixed evergreen woodland in Wildcat Canyon.
- b. Habitats which are unique or rare in the Tri-Cities Area, such as the native grassland community on Brooks Island.

Finding No. 7 gives an initial listing of such unique natural areas (See Policy Map 11). (Open Space for Preservation of Natural Resources).

8. To minimize the danger to public health and safety caused by building in an area with a high fire risk (See Policy Map 12), the following policies should be implemented:

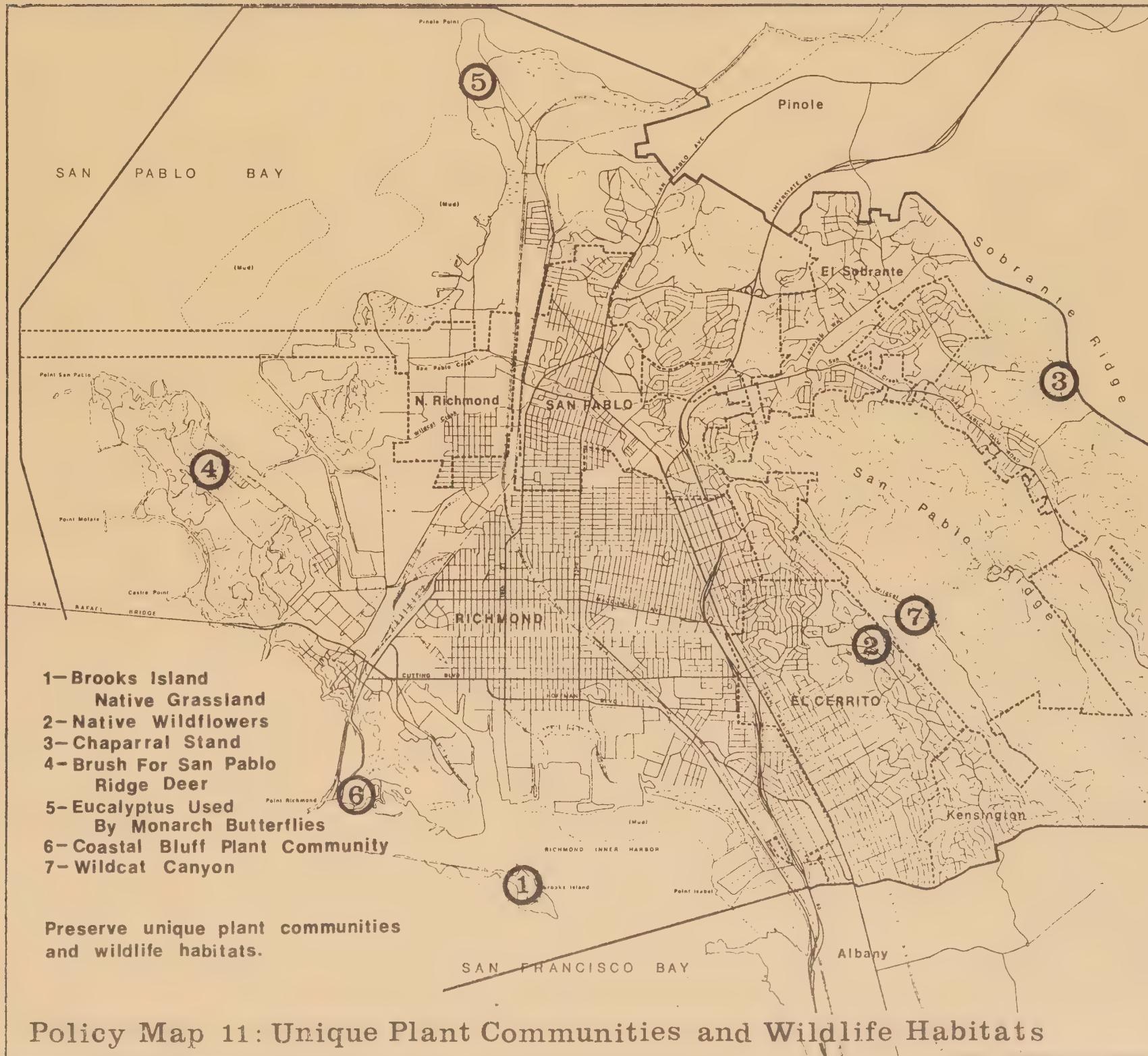
- a. New residential and commercial development should be discouraged on the fire-prone north-facing slope of Wildcat Canyon. (Open Space for Public Safety).
- b. In any area designated as having a fire hazard, adequate fire equipment, facilities, water, and access should be provided for a quick and efficient response.

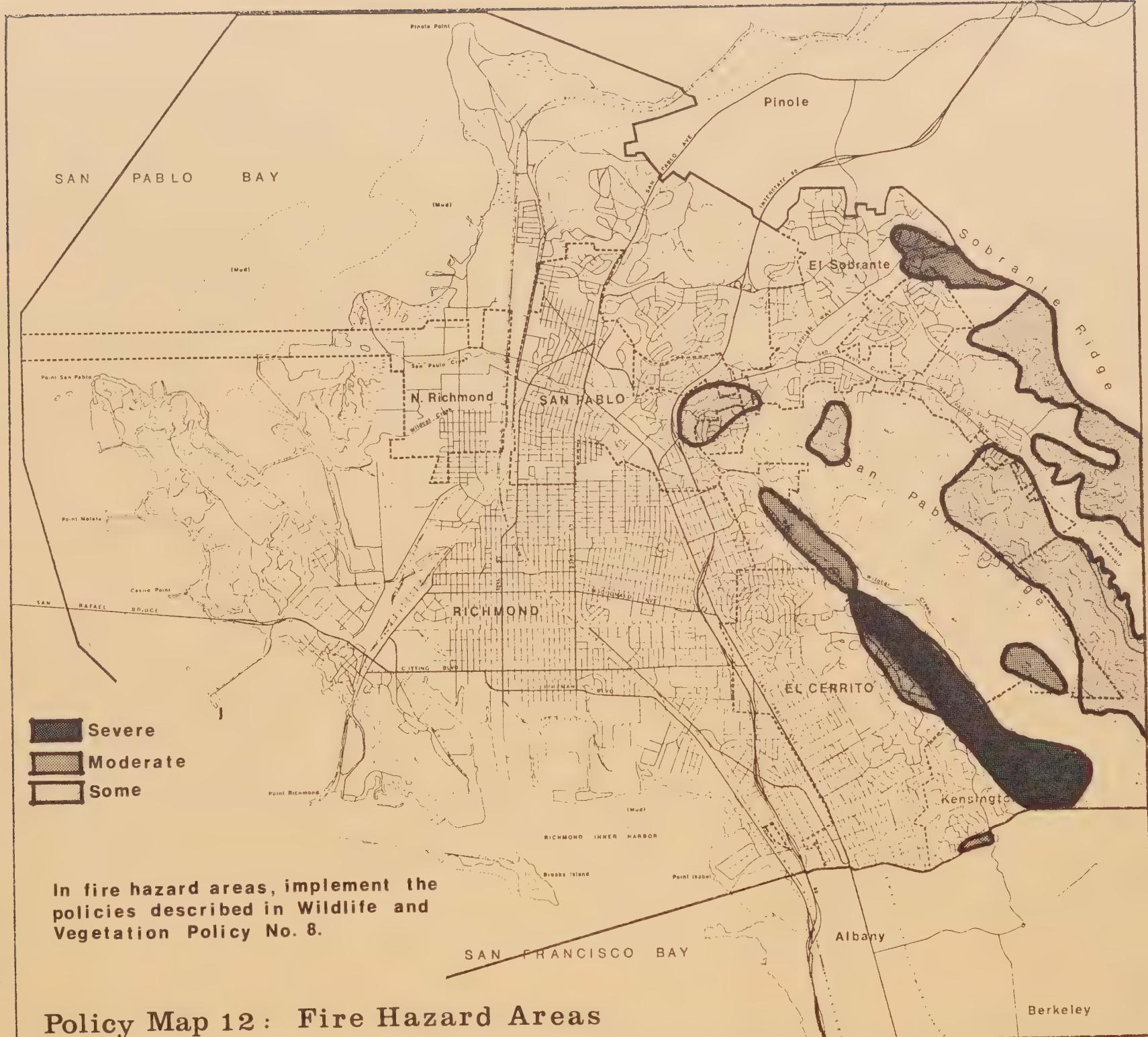
In particular, the following requirements should be placed on any such development:



Protect specific habitats that are needed to prevent the extinction of any plant or animal species.

Policy Map 10: Habitats of Rare & Endangered Plant & Animal Species





WILDLIFE AND
VEGETATION

- 1) Landscaping measures, such as proper placement of plants and use of fire-resistant plants, should be utilized to reduce fire risk.
 - 2) Brush and grass should be removed within at least 30 feet of all structures. Care must be taken to avoid erosion in any such area as well. More brush may need to be removed to reduce the risk to an acceptable level.
 - 3) The perimeter exposed to fire should be reduced as much as possible.
 - 4) Fire-resistant exterior building materials should be used for all buildings within a fire-prone area.
- c. Local governments should undertake a consumer education program to inform residents about methods individuals can use to retard fires. A list of fire-resistant plants should be made available by Local Parks and Recreation Departments.
 - d. If a fuelbreak proves necessary to protect the public from a serious fire hazard, measures should be taken to control erosion, minimize damage to the ridge's appearance, and restore wildlife habitat.

AGRICULTURE

1. Findings.

1. The U. S. Soil Conservation Service classifies soils on a scale of I through VIII, according to their value for agriculture; Class I and II soils are considered prime soils for cultivated agriculture. Class IV and VI lands are considered good grazing land. The Soil Conservation Service also rates grazing land in terms of the pounds of forage which will be produced each year.
2. While much of the soil in the flat part of the Tri-Cities Area is rated as prime agricultural soil, almost all has been developed with urban uses. Only one small area west of North Richmond remains in agricultural use.
3. Because of high rainfall and appropriate soil, much of the Wildcat Canyon-San Pablo Ridge Area is rated by the Soil Conservation Service as having a high potential for use as grazing land. The San Pablo Peninsula and Sobrante Ridge, on the other hand, have less potential as grazing land. Much of both the publicly and privately owned land on Sobrante Ridge, in Wildcat Canyon, and on San Pablo Ridge, is presently used for grazing.
4. Because of its proximity to urban areas, most of the grazing land in the Tri-Cities Area is being taxed at rates far above its value as agricultural land. Thus, in most cases sales of livestock are insufficient to pay the property taxes, and owners wish eventually to sell their land for urban development. However, much of this land may be unsuitable for urban development because of unstable slopes, steep topography, inadequate access, insufficient urban services, or for other reasons.
5. The Agricultural Preserve Program, under the State Land Conservation Act, is a means of holding land in agriculture for the short range future. Under a 10-year no-development contract, owners receive property tax relief. Reduced revenues are partly reimbursed through the State Open Space Subvention Act Fund. Adding lands to the Agriculture Preserve Program would aid significantly in maintaining the profitability of agriculture. Contra Costa County now utilizes the program, although none of the three cities have implemented it.

AGRICULTURE

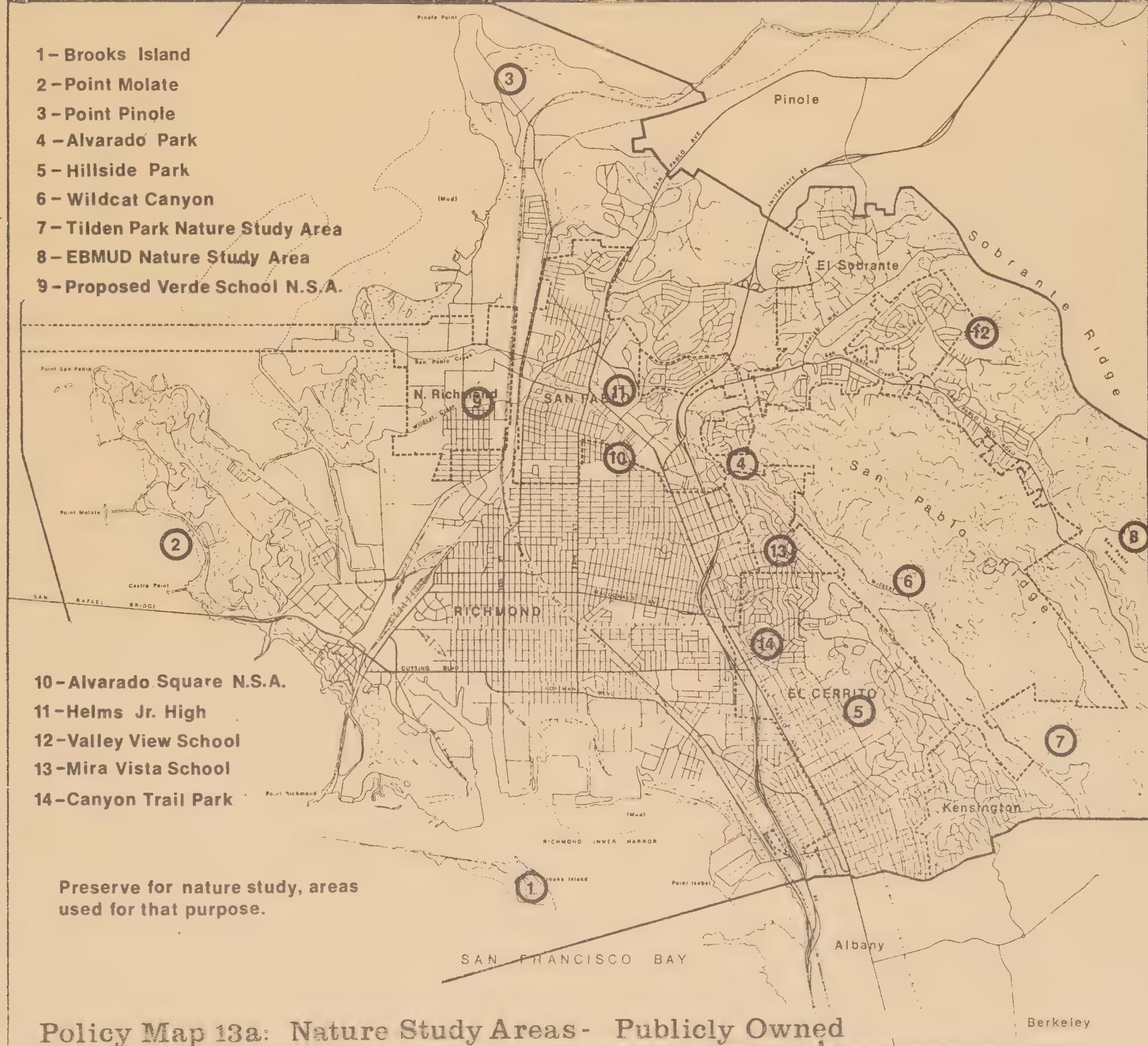
2. Policies.

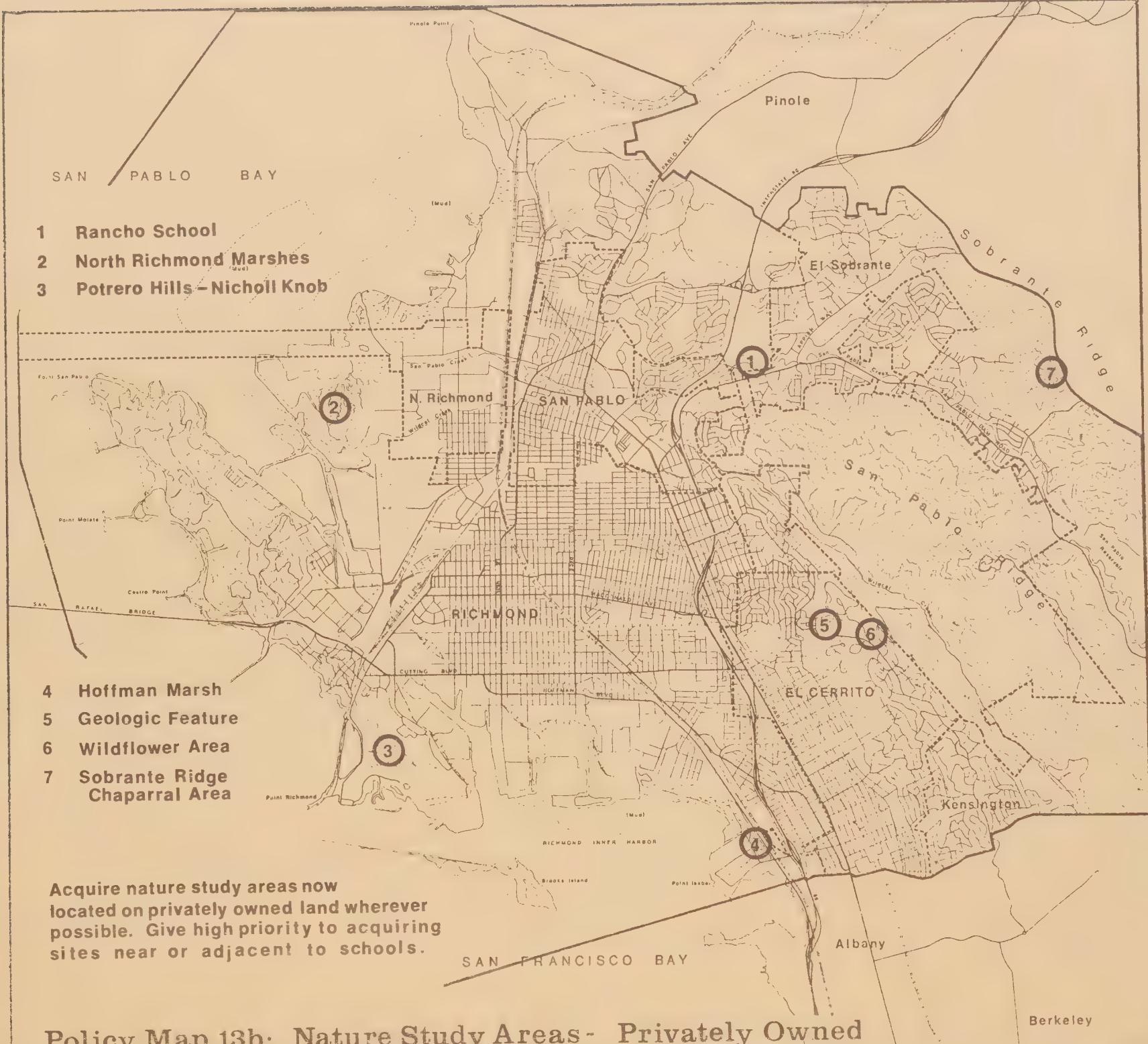
1. Agricultural use of the small area of prime farmland remaining in the Tri-Cities Area should be encouraged, at least as an interim use. (Open Space for the Managed Production of Resources)
2. If an owner of grazing land finds that urban development is unfeasible and wishes to retain his land for grazing purposes, he should be permitted to include it in the Agricultural Preserve Program and to de-annex his property from taxing districts which are intended to serve urban needs, such as sewage treatment and local parks.

AREAS REQUIRED
FOR ECOLOGIC
AND OTHER
SCIENTIFIC STUDY
PURPOSES

1. Findings.

1. Natural areas may serve two kinds of study purposes:
 - a. They may be used to educate children and adults about natural processes.
 - b. They may be used by scientists to study natural processes.
 2. An inventory of such natural areas has been completed by the Tri-Cities Planning Study, and they are shown on Policy Map 13. Many were previously listed in the Wildlife and Vegetation Section. The areas fall into two categories:
 - a. Many areas used for nature study purposes are publicly owned. They can continue to be used for this purpose so long as public agencies plan for this use.
 - b. Some areas with potential for nature study are privately owned. In some cases public agencies have proposed to acquire the areas; in others, other means may be used to preserve them.
 3. Some areas adjacent to schools have potential for nature study. Some are developed; most are not; and a few are privately owned. It is often difficult to utilize these areas because of natural hazards.
2. Policies.
1. Natural areas shown on Policy Map 13, which are used for educational or other scientific purposes, are particularly important, and high priority should be given to retaining them in their natural state.
 - a. Areas used for nature study on publicly owned land should be preserved for that purpose.
 - b. Unique natural areas should wherever possible be acquired by public agencies or preserved by other means. High priority should be given to acquiring sites near or adjacent to schools and parks. (Open Space for Preservation of Natural Resources).





Acquire nature study areas now located on privately owned land wherever possible. Give high priority to acquiring sites near or adjacent to schools.

Policy Map 13b: Nature Study Areas - Privately Owned

AREAS REQUIRED
FOR ECOLOGIC
AND OTHER
SCIENTIFIC STUDY
PURPOSES

2. Assistance should be given schools and parks by appropriate agencies, such as the Soil Conservation Service and County Department of Education, in developing natural areas adjacent to them for study purposes.



RECREATIONAL AND CULTURAL RESOURCES

SECTION 4:

RECREATIONAL AND CULTURAL RESOURCES

EXISTING RECREATIONAL RESOURCES

1. Findings.

1. All three cities provide community and neighborhood parks and recreational activities. El Cerrito has developed most of its open space but encourages the inclusion of additional open space to meet changing needs of the City. Richmond and San Pablo have not completely developed all their parks and plan to acquire additional parklands. (See Information Map 9). All three cities require open space and recreation areas in new developments. Richmond plans to revise its Park and Recreation Principles and Standards in the next year.
2. Only one neighborhood or community park or recreation center is provided in the unincorporated part of the Tri-Cities Area, a recreation center in Rollingwood. Some local facilities will be constructed in North Richmond in connection with the Wildcat Creek Flood Control Project; and the Kensington Community Services District and Rollingwood Park and Recreation District could provide a park. No District is available to provide local parks in El Sobrante or East Richmond Heights.
3. Because the City and County boundaries are so fragmented, residents of one jurisdiction often use the local parks of another. The cities and county use different standards in determining the need for parks and required open space. Contra Costa County cities will be required to submit priorities for park development under the State Park Board Program.
4. While it seems clear that some additional local park facilities are needed, the existing standards used in determining the need for parks are inadequate. They do not take into account such factors as socio-economic status, access, density, and climate.
5. Many park facilities, particularly regional parks, are inaccessible to those people who do not own or have access to automobiles.
6. The East Bay Regional Park District was established to provide regional park and recreation facilities in Alameda and Contra Costa Counties. The District is now preparing a Master Plan to determine priorities for park acquisition for the next ten years.

Information Map 9: Existing Outdoor Recreational Resources

Berkeley

- Public Parks and Playgrounds
- School Grounds
- [] Private Outdoor Recreation



EXISTING
RECREATIONAL
RESOURCES

7. The Park District now owns six parks in the Tri-Cities Area: Brooks Island, Kennedy Grove, George Miller, Jr. Regional Park, Point Pinole, Wildcat Canyon, and Tilden Park. (See Information Map 9.) The first draft of its Master Plan has given high priority to expansion of George Miller, Jr. Park and Wildcat Canyon; medium priority to expansion of Brooks Island; and low priority to expansion of Point Pinole. Two proposed new parks, Hoffman Marsh and Sobrante Ridge, were given low priority. If the Navy Fuel Depot at Point Molate is ever declared surplus, the Park District has expressed interest in acquiring it.

8. In accordance with its 1971 Land Use Master Plan, the East Bay Municipal Utility District has provided a Regional Recreation Area at San Pablo Reservoir. A boat dock, rental boats, picnic area, and concession area are being provided. The Reservoir is stocked with fish. It is expected that this Recreation Area will be heavily used.

2. Policies.

1. Sufficient land within the Tri-Cities Area should be provided to satisfy the recreation needs of its residents. To avoid duplication and to ensure that all residents of West Contra Costa County are provided with adequate neighborhood and community parks, the cities of West Contra Costa County, Special Districts, and the County should be encouraged to participate jointly in the following activities:

- a. Developing more adequate standards for neighborhood, community, and regional parks.
- b. Determining where outdoor recreation areas are needed in West Contra Costa County, and setting priorities for acquisition and development.
- c. Developing uniform standards for open space in new developments and for other development fees relating to parks and recreation.

2. To ensure that all residents are able to utilize the

EXISTING
RECREATIONAL
RESOURCES

regional parks, alternative means of access to the parks, including public transportation, hiking trails, and biking trails, must be provided for those who do not own automobiles.

3. Sufficient land within the coastline and in the hills should be available to meet existing and future needs for regional recreation. The East Bay Regional Park District should be assisted in acquiring, developing, and managing the regional recreation facilities outlined below. (Open Space for Outdoor Recreation).

4. Additional shoreline not now in public ownership on Brooks Island should be acquired. Public use of the Island should be provided, with provision made for protecting the archaeological sites on the Island. Access to the Island should be by boat to protect the Park's integrity as an Island. A public ferry and boat docking facility should be provided. (Open Space for Outdoor Recreation.)

5. Contra Costa County, the Regional Park District, and the Municipal Utility District should coordinate efforts to improve access to Kennedy Grove.

6. George Miller, Jr., Regional Park should be given high priority for further expansion to provide a more adequate regional park. The Park should include hillsides, flat areas, and shoreline. Some development of the Park should be completed as soon as possible. (Open Space for Outdoor Recreation.)

7. Additional marshlands at Point Pinole and North Richmond should be acquired. (Open Space for Preservation of Natural Resources). A variety of activities would be suitable in the new Point Pinole Regional Park, featuring but not limited to tideland preservation, nature study, fishing from the shore and piers, hiking and riding trails, and picnicking areas. Camping is a possible use in the area.

8. Sufficient land should be acquired in Wildcat Canyon to protect the Canyon area visible from within the Park. This acquisition should be given high priority. The unique natural quality of the Canyon should be preserved, and only minimal development should be completed in the park. An internal transportation system linking Wildcat Canyon with Tilden Park and with El Cerrito would be desirable, and the Park District should work closely with the local agencies in completing its detailed plan for the park. (Open Space for Outdoor Recreation and Preservation of Natural Resources).

EXISTING
RECREATIONAL
RESOURCES

9. Recreational facilities should be included as part of the flood control project proposed for San Pablo and Wildcat Creeks. In particular, use of the North Richmond marshes as an environmental education center should be promoted. (Open Space for Outdoor Recreation and Preservation of Natural Resources).
10. The Navy should be encouraged to declare land at Pt. Molate surplus as soon as it is no longer required for the national defense. The full recreation potential of the existing site should be developed, and hike and bike access and some form of public transportation to the beach should be provided. (Open Space for Outdoor Recreation).
11. Consider development of a non-intensive recreation facility on the present sanitary landfill site after its current use for disposal of solid waste materials is terminated. (Open Space for Outdoor Recreation).
12. Promote use of E. Brother Island as a retreat or interpretive museum by the State or by the Regional Park District. (Open Space for Outdoor Recreation).
13. The unique botanical community on Sobrante Ridge should be protected for use as a botanical preserve. (Open Space for Outdoor Recreation).
14. The East Bay Municipal Utility District's Land Use Plan, which includes plans for recreation, watershed protection, and nature study on its lands, should be supported.
15. The three cities should encourage appropriate agencies such as the East Bay Regional Park District or East Bay Municipal Utilities District, to develop a public golf course within western Contra Costa County.
16. All agencies responsible for the operation of parks, nature areas, trails, and other public outdoor facilities should ensure that their facilities are adequately patrolled and otherwise supervised to ensure the safety of all users and to ensure that vandalism and other damage to the parks do not occur.
17. Individual private and shared yards of residences are important open space and recreational amenities in El Cerrito. The City encourages, for new residential development in the City, the preservation and expansion of such open spaces.

LINKS BETWEEN
RECREATION AND
OPEN SPACE
RESERVES

1. Findings.

1. Major open space and recreation reserves in the Tri-Cities Area include coastline parks from Point Isabel to Point Pinole; and hill area parks including Wildcat Canyon, Hillside Park, and San Pablo Reservoir.
2. Three BART stations are located in the Tri-Cities Area. Many residents can reach the parks only by using public transportation, bicycles, or hiking. A bicycle trail is located under a portion of the BART right-of-way in El Cerrito.
3. Routes are available to link the coastline parks to each other and to link the hill area parks to each other. In some cases these routes have been thoroughly studied, and agencies agree on an appropriate route; in other cases, agency proposals do not agree; in still others, little analysis of routes has been completed.
4. Routes along San Pablo and Wildcat Creeks have been suggested to link hill parks with coastline parks. The Tri-Cities Planning Study has prepared a detailed plan for a route on the creeks west of Highway 80. Other routes have also been suggested utilizing San Pablo Creek and San Pablo Dam Road.
5. Planning of trails in the area is presently uncoordinated, and the trails planned by the various agencies do not agree with each other in many cases.
6. The East Bay Regional Park District is empowered to own, develop, and operate regional trails. It could accept responsibility for operation, and maintenance of the regional trail links.

2. Policies.

Locational Policies:

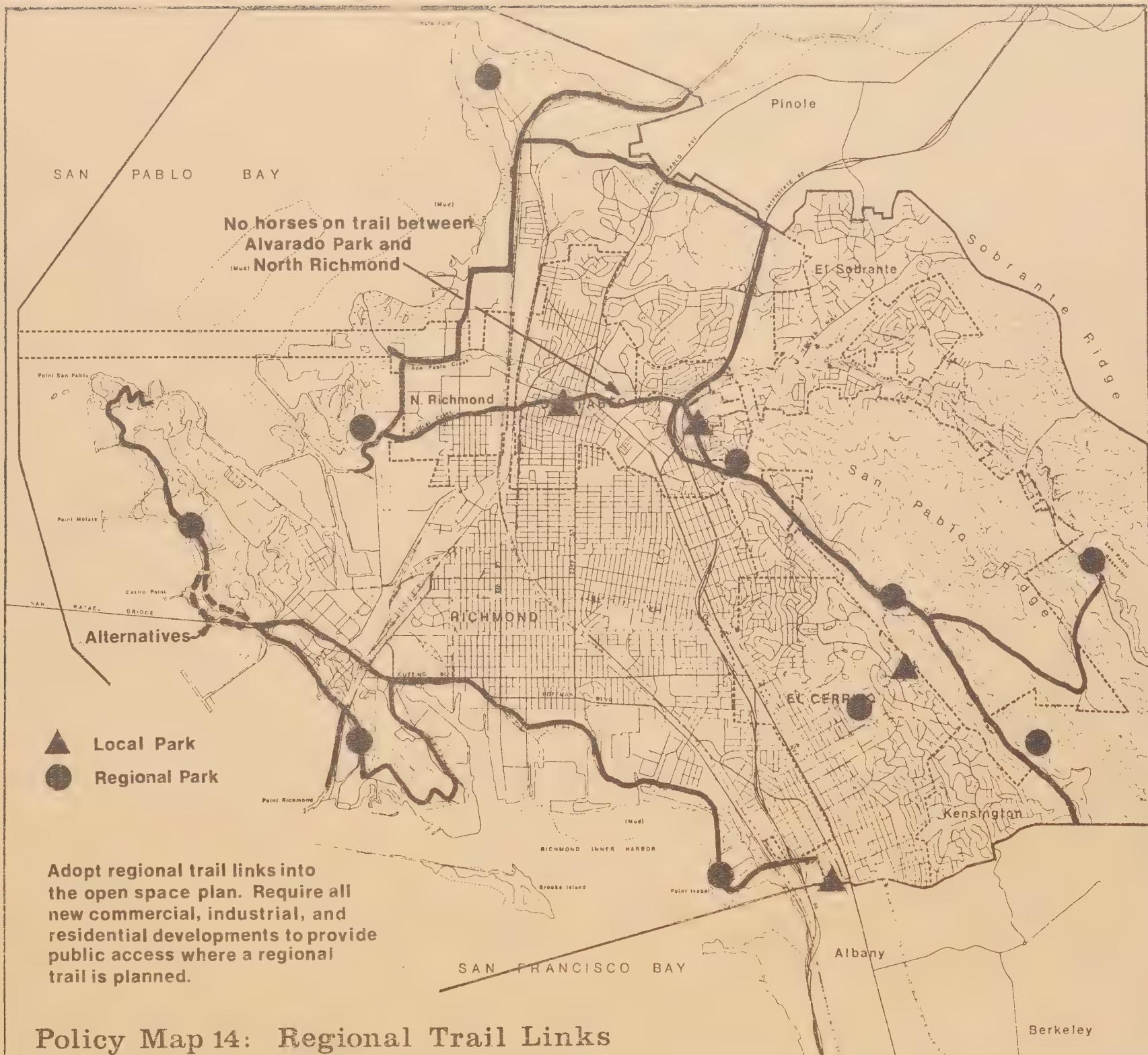
1. Detailed planning of routes should be completed as part of a voluntary region-wide study, involving local, regional, and county agencies.

LINKS BETWEEN
RECREATION AND
OPEN SPACE
RESERVES

2. Regional trails linking the coastline areas with each other and linking the hill areas should be developed. Local and regional parks departments should jointly select the most appropriate routes for these trails. Well-studied routes shown on Policy Map 14 should be adopted into the open space plan. (Open Space for Outdoor Recreation).
3. A regional trail linking the coast with hillside parks should be developed. A bicycling and hiking trail should follow the route approved in A Plan for San Pablo and Wildcat Creeks. Staging areas for horses should be provided in Alvarado Park and in North Richmond; however, the horses should not follow the trail through San Pablo. The feasibility of using Highway 80 and Atlas Road to provide a horse route linking the hills with the coast should also be studied. (Open Space for Outdoor Recreation).
4. To encourage the use of alternatives to the automobile, the routes of regional trails for hiking and bicycling should connect with BART stations and major bus stops wherever possible. The existing BART linear park should be incorporated into this system. Any adopted trail system should also provide for local links to commercial areas and public institutions such as schools. Wherever possible, archaeological and historic sites and vista points should also be acquired and incorporated into the trail.

Management and Development Policies:

1. All new commercial, industrial, and residential developments should be required to cooperate in the provision of public access where a regional trail is planned.
2. Ownership of land used for a regional trail should be retained where possible by a public agency to minimize liability and other problems.
3. All jurisdictions which will benefit from a regional trail should contribute to its construction and operating costs. Standards of the National Scenic and Recreational Trails System should be met for regional trails, particularly for the trail connecting hill parks with



Policy Map 14: Regional Trail Links

LINKS BETWEEN
RECREATION AND
OPEN SPACE
RESERVES

shoreline parks, which is linked to the Regional Park District's National Skyline Trail.

4. Each trail link should be clearly marked with signs. Where the trail link is to be used exclusively by a particular type of users (such as hikers) the trail link should be clearly designated and should be equipped with signs or barriers to prevent the entry of other types of users.
5. The edge of the trail should be clearly designated by planting, signs, or where appropriate and necessary, fencing, to prevent trespassing on adjacent private lands.
6. The trail itself should be improved to the accepted standards of grade, surfacing, and width for the use designated.
7. The primary management objective should be to allow the public to use the trails to reach recreational facilities while enjoying the surrounding landscape, without trespassing on private lands.
8. The corridor should be managed to present as natural an appearance as possible. This may require some planting along some trails and frequent maintenance along all trails.
9. All trails should be patrolled regularly by an appropriate agency to ensure that inappropriate users (such as motorcyclists) are not using the trail and to ensure the safety of all users. Types of users should be encouraged to form volunteer groups from within their ranks to assist in the patrolling and maintenance of the trails.
10. The use of motorcycles should be prohibited on trails which are intended for other users.

ARCHAEOLOGICAL SITES

1. Findings.

1. Very little is known about the Indians who lived in this area before the 1770's. Most information about the Indians must be obtained from mounds and other archaeological sites. Archaeological sites may also yield information about the natural history of the Bay Area. Many Native Americans, however, object to the removal of graves.

2. A number of archaeological sites still exist in the Tri-Cities Area. Some additional ones may not be known. The most important known sites are located on Brooks Island and near San Pablo Creek.

3. Sites may be destroyed by artifact collectors, vandalism, and grading. Insufficient funds are available to finance salvage on many sites. Some courses are available, but no museum in the area regularly displays Indian artifacts.

4. Archaeological sites may qualify for federal aid if they are listed on the National Register. San Pablo may include an Indian exhibit in its new Alvarado Square, and may in the future construct a separate archaeological museum. Brooks Island is owned in large part by the Regional Park District.

2. Policies.

1. A survey should be made immediately to determine the presence of sites on publicly owned land, and sites qualifying should be nominated for placement on the National Register. The cities should offer to assist private owners of qualifying sites in placing them on the Register.

2. A plan for interpretive facilities on specific sites should be formulated. Sites near local and regional recreation areas should be preferred. Sites should be included in parks, trails, and other facilities whenever possible. An archaeological museum on San Pablo Creek would provide a service to the entire West Contra Costa area and should be strongly supported by all area agencies. Any application for funds to construct the museum should be given high priority by appropriate state and federal agencies.

3. In areas shown on specific city maps as possible archaeological sites*, a survey by a qualified archaeologist shall be required prior to new development. If sites of

ARCHAEOLOGICAL
SITES

archaeological significance are present, the developer should be encouraged to include them as part of required open space. If, however, the sites must be destroyed, the developer should be required to refrain from excavation of the site to allow for salvage.

4. No digging should be allowed in known Indian cemeteries. A permit from the appropriate city should be required before the start of any other archaeological excavation. Each such application for a permit should be reviewed by a committee that includes a representative of the city, a representative of a local educational institution, and a representative of a local Native American organization. A permit may be issued if the digging would serve a bonafide educational purpose and if known gravesites would be avoided.

* Note: Because of the danger of vandalism of sites, maps of specific archaeological sites have not been released to the public.

1. Findings.

1. Scenic resources are valuable. They improve the health and well-being of the residents, improve the economic value of surrounding property, create a sense of local identity or image, orient observers within the area, separate individual communities, and provide visual open space for the public.

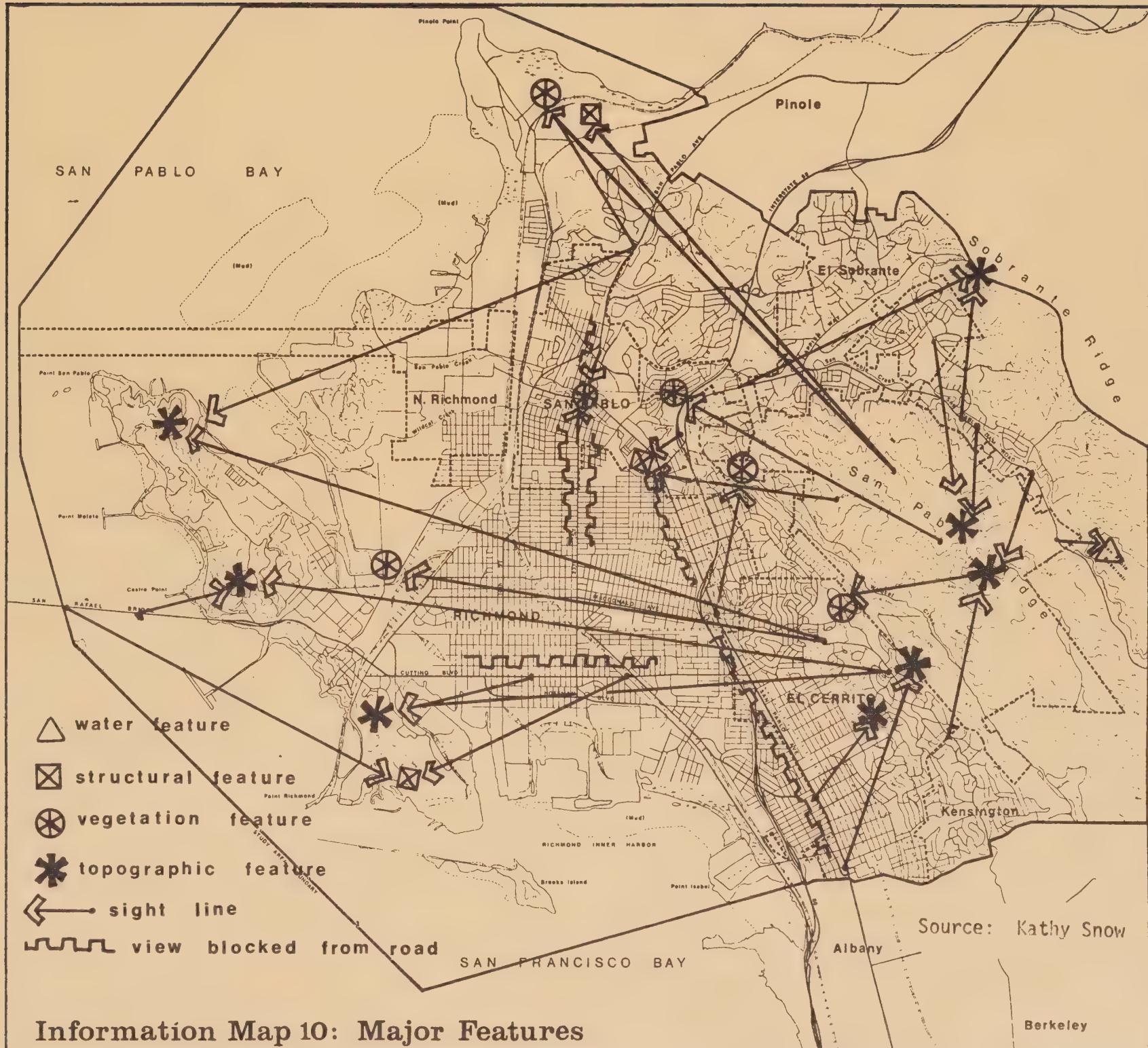
2. The following elements are important scenic resources in the Tri-Cities Area:

- a. Ridgelines and the coastline define the form of the area and provide scenic backdrops.
- b. Features add variety and character to an area. Features can be hills, water, vegetation groups or structures.
- c. Vista points provide panoramic views of major Bay Area features.

3. Some features have a potential for being scenic resources, but are not visible to most of the public at the present time. The coastline is not readily accessible and lacks definition in the flat areas. San Pablo Creek and Wildcat Creek are inaccessible and hidden by development.

4. The major ridgelines in the Tri-Cities Area include the San Pablo Peninsula, the Berkeley Hills, San Pablo Ridge, and El Sobrante Ridge. The eastern ridges (Berkeley Hills, San Pablo Ridge, and El Sobrante Ridge) form a green backdrop which offers a pleasing contrast to the urbanized flats below and serve to separate and define individual communities. The height and position of the San Pablo Peninsula make it a prominent orientation feature in the study area. The shape and color of the oil tanks contrast with the green vegetation of the ridge, and with the low-rise urban development in the flatlands of the area. The peninsula ridge forms both a backdrop for downtown Richmond and a focal landmark on approaching the city from the San Rafael Bridge.

5. The major features and vista points in the Tri-Cities Area are shown on Policy Map 16 and Information Map 10. Major features include San Pablo Reservoir, Brookside



SCENIC
RESOURCES

Hospital, the eucalyptus grove in Alvarado Park, Kennedy Plaza, and Nicholl Knob. Vista points include Nicholl Knob, San Pablo Ridge, and Point Pinole.

6. Some of the central flatlands present a bland and uniform appearance, while others are quiet and neat. The quality of residential gardens in the area is unusually high due to the good climate and soil. There are a few features in this area, primarily vegetation elements which add variety, such as Kennedy Plaza and St. Joseph's Cemetery.

7. The El Sobrante area is separated from the urban flats by San Pablo Ridge. The hills surrounding this area contribute to its rural-suburban character.

8. Wildcat Canyon Regional Park is a natural area unique within the Tri-Cities Area. Development along the Berkeley Hills ridgeline is very noticeable from within the park.

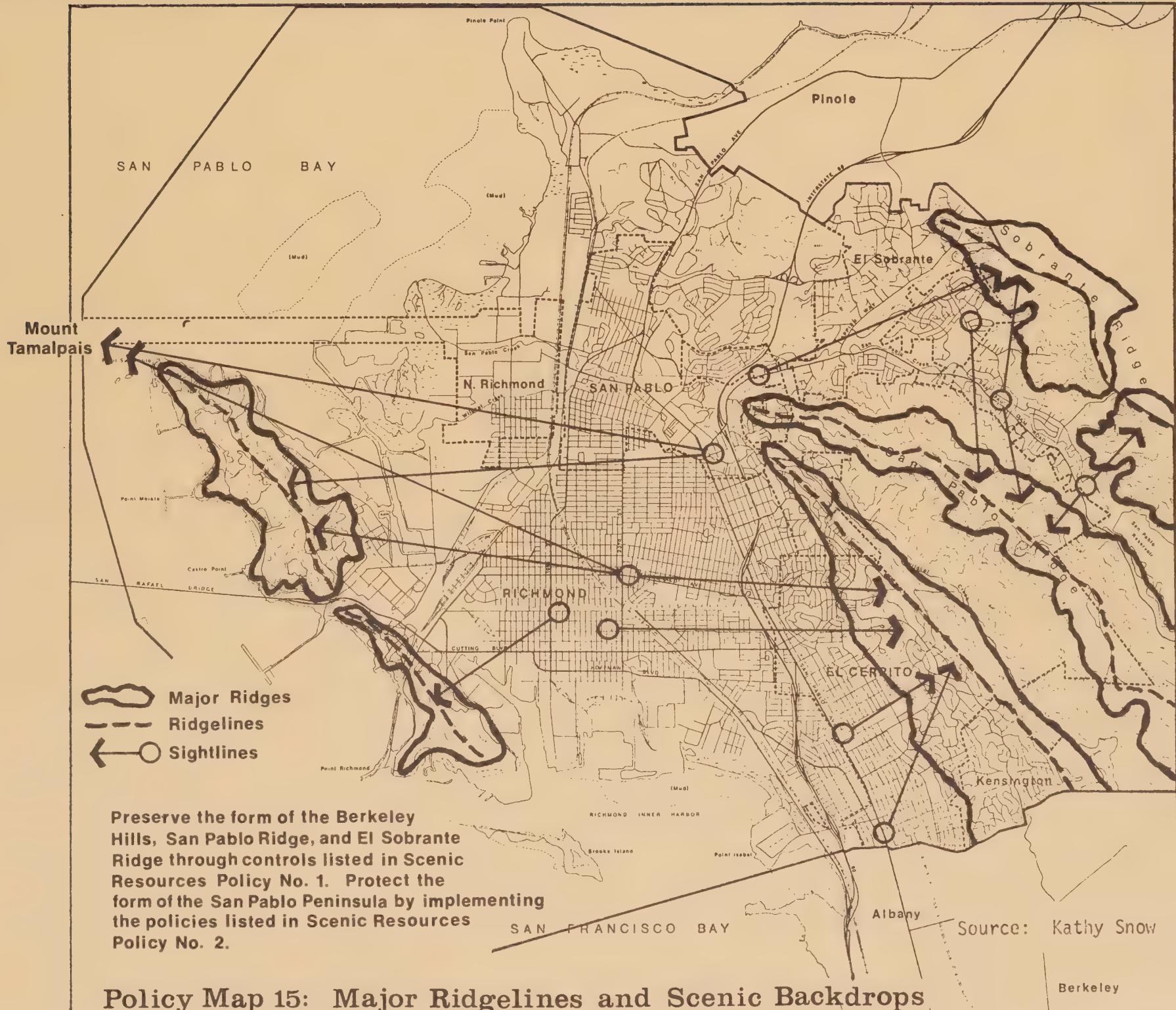
9. Development controls are available which could protect the character of the ridges, vista points and features. Methods are also available to make the creeks and the coastline more visible and attractive.

2. Policies.

1. Preserve the form of the Berkeley Hills, San Pablo Ridge, and El Sobrante Ridge through controls on the height and siting of buildings on the ridge slopes; controls on the amount of cut and fill on ridge slopes; regulating the placement of utility crossings; and limiting the removal of vegetation (Policy Map 15). (See Waterways Policy No. 1, Wildlife Policy No. 2, Soil Policy No. 3).

2. To protect the form of the San Pablo Peninsula and to make it a credit to the Tri-Cities Area, property owners should be urged to utilize the services of expert landscape architects in siting of additional tanks and altering the landscape. Means utilized might include:

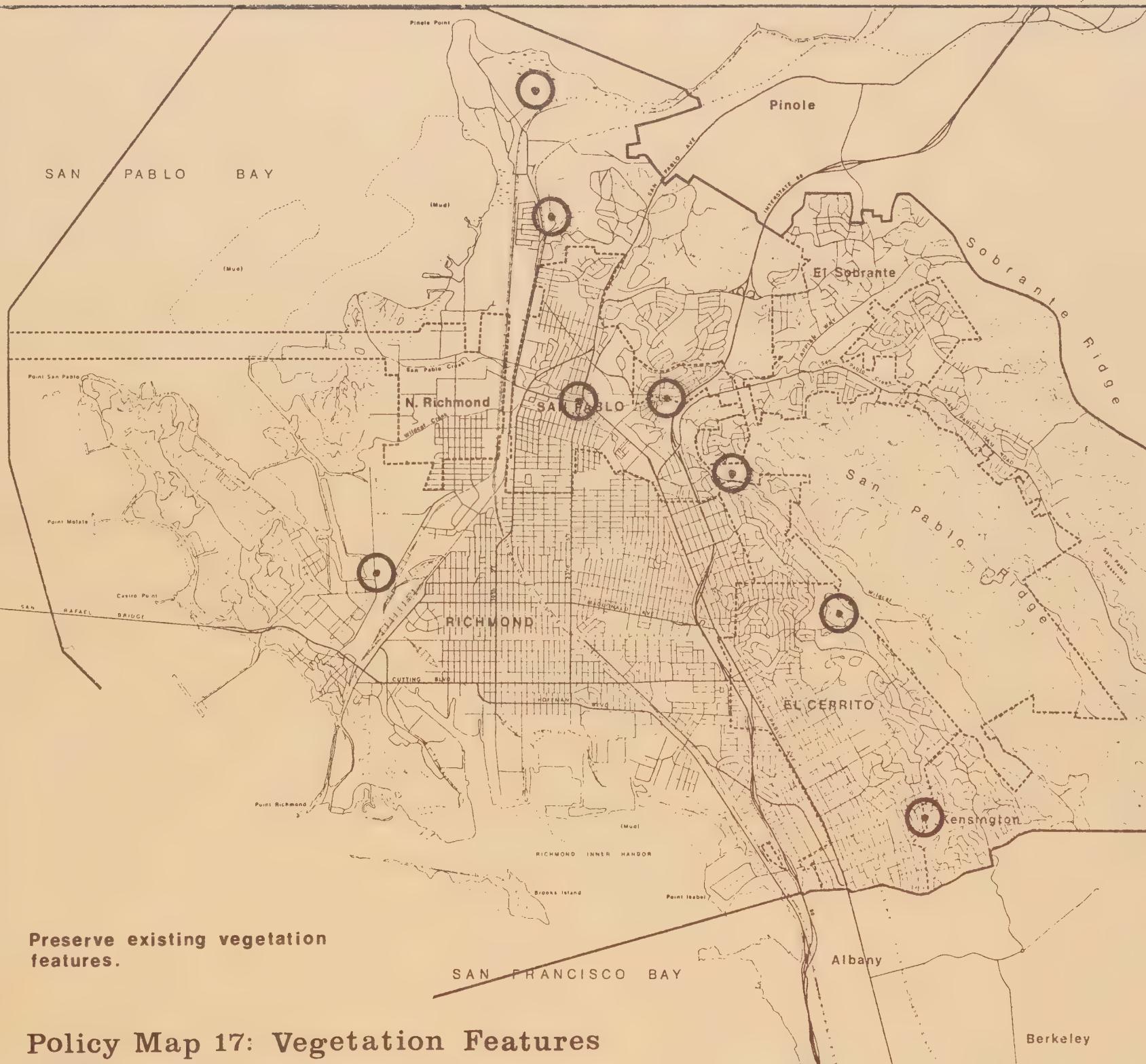
a. Locating tanks or other structural features below the ridgeline.



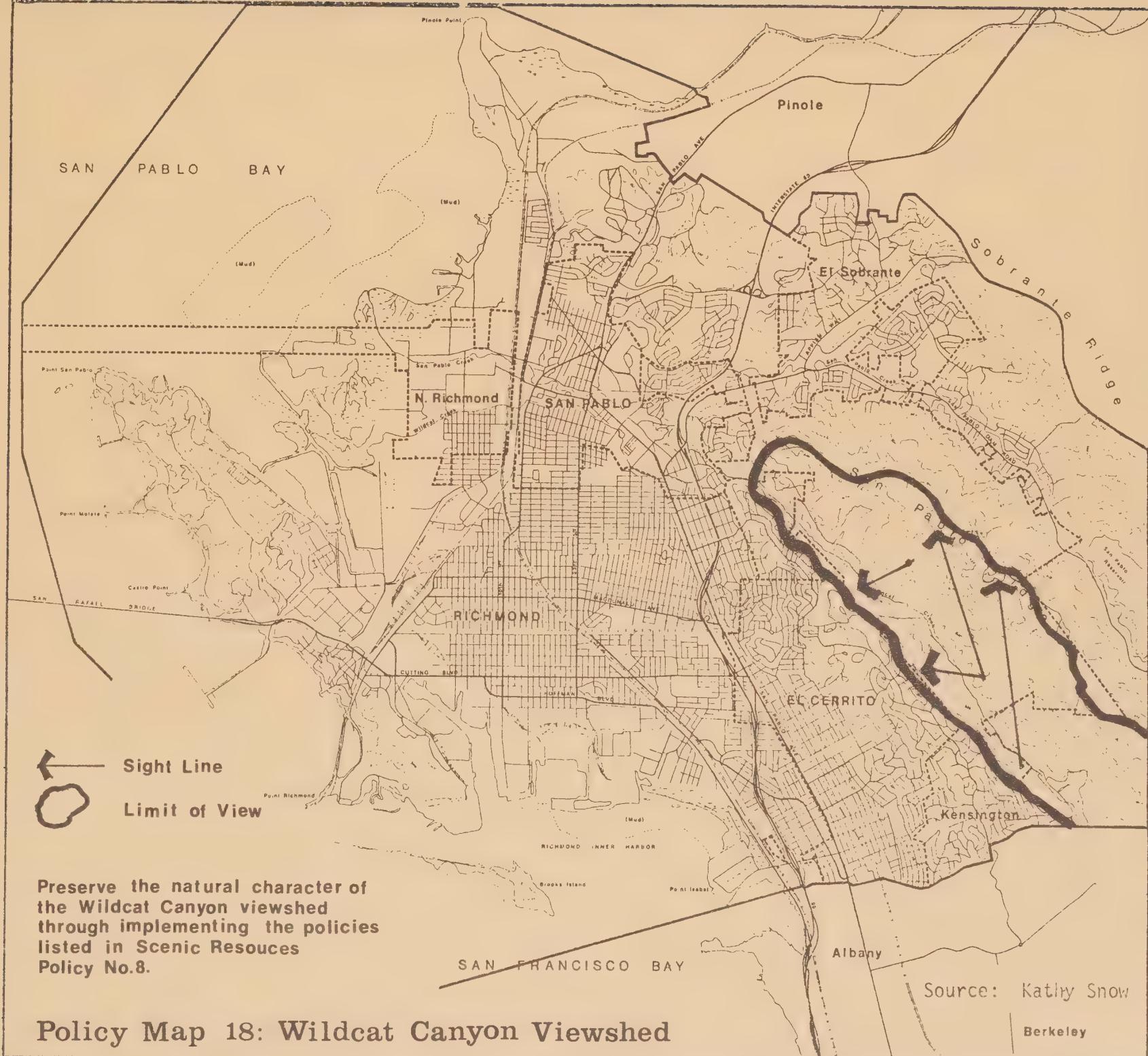
SCENIC
RESOURCES

- b. Creating sculpted earth berms that blend with the natural topography to screen large concentrations of tanks from view.
- 3. Utilize to greater advantage for regional recreation purposes the inspiring land forms and shoreline vistas of the sloping lands on San Pablo Peninsula west of the San Rafael Bridge. (Open Space for Outdoor Recreation).
- 4. New development should not be located on vista points shown on Policy Map 16, and public access should be provided. Wherever possible such points should be purchased and included in a trail system, scenic highway or park. Where vista points occur along major roads, overlooks should be provided. Views of the Bay and other features should be protected through controls on the siting and height of buildings adjacent to roads.
- 5. The potential landmark character of San Pablo and Wildcat Creeks should be preserved and enhanced. Some methods might include establishing building setbacks; providing more public access points; replanting creek banks with distinctive native vegetation. (See Waterways Policy No. 5, Wildlife Policy No. 4).
- 6. Existing vegetation features should be preserved (Policy Map 17). Planting of new vegetation, especially of native plants, should be encouraged where such plantings would help to define important areas and features, such as public buildings, parks, creeks and coastline. (Open Space for Preservation of Natural Resources).
- 7. Views of the coastline should be increased and enhanced, by means such as: limiting building heights near the water's edge; staggering the siting of buildings to minimize blockage of views; opening up views by clustering structures and increasing street setbacks; creating a coastline drive with viewpoints; encouraging industrial developments to cluster and screen their structures.
- 8. The natural character of Wildcat Canyon should be preserved (Policy Map 18). To do this, the following methods may be utilized: limiting the height of buildings, prohibiting structures and major cuts along ridge crests; clustering development and utilities in low points; controlling color and material of structures, requiring buildings to be screened from park; prohibiting development along Wildcat Creek; and minimizing removal of native vegetation. The East Bay Regional Park District should acquire enough additional land to protect the viewshed within Wildcat Canyon. (See Scenic Resources Policy No. 1.) (Open Space for Outdoor Recreation).





Policy Map 17: Vegetation Features





PART 4

Action Program

PART 4:
ACTION PROGRAM

The legislation requiring that an open space and conservation element be adopted also requires that an action program be included to implement it. This means that planning for open space cannot end with general proposals, but must specify actions needed to achieve open space proposals. It is the purpose of this section to comply with this requirement.

While the Open Space and Conservation Element deals with open space for the entire Tri-Cities Planning Area, including many unincorporated areas, this action program specifies actions only for the Cities of El Cerrito, Richmond and San Pablo. Contra Costa County has developed its own action program for the unincorporated areas as a part of its Open Space-Conservation Plan.

The action program is divided into three sections. Actions to be undertaken by each of the three cities are listed first. The next section discusses requests the cities may make of other government agencies. The last section generally discusses sources of revenue that can be used to help in implementing this plan.

1. ACTIONS BY THE PLANNING DEPARTMENTS, PLANNING COMMISSIONS, AND CITY COUNCILS OF EL CERRITO, RICHMOND, AND SAN PABLO.

a. Adopt the Open Space and Conservation Element.

The Planning Commissions and City Councils should adopt this plan as the basis for decisions relative to development within their jurisdictions.

Specific Implementation Items:

- Some areas shown as available for development on local general plans may be shown as open space on this plan. If this plan is adopted, the open space category will have precedence.

b. Complete and Adopt the Seismic Safety Element.

As part of the Tri-Cities Planning Study, the Tri-Cities Citizens Advisory Committee for Seismic Safety is preparing a Seismic Safety Element of the General Plan. Its policies regarding unstable soil areas and fault zones will complement the policies in the Open Space and Conservation Elements.

Specific Implementation Items:

- Continue efforts to prepare the Seismic Safety Element, and adopt as soon as possible.
- Coordinate recommendations with those in the Open Space and Conservation Plan.

c. Complete and Adopt Other General Plan Elements.

The last few years have seen the required number of elements to the general plan grow rapidly. Public safety and noise elements are now required, and park and recreation elements are optional, although they are required for cities to receive certain open space grants. The three cities have proposed to hold a joint conference to discuss park and recreation standards, and these standards may be incorporated into the park and recreation elements of the three cities.

Specific Implementation Items:

- Continue efforts already programmed for the preparation of the required general plan elements.
- Encourage the three cities to hold a joint conference to discuss park and recreation standards, and where appropriate incorporate these into the park and recreation elements of the three cities.

d. Conformance of Zoning to the Open Space and Conservation Elements.

Section 11526 of the Business and Professions Code specifies that "No city or county shall approve a tentative or final subdivision map unless the governing body shall find that the proposed subdivision, together with the provision for its design and improvement, is consistent with applicable general and specific plans of the city and county." This concept is emphasized in the legislation referring to open space plans. In particular, Section 65567 of the Government Code states "No building permit may be issued, no subdivision map approved, and no open space zoning ordinance adopted, unless the proposed construction, subdivision, or ordinance is consistent with the local open space plan."

For purposes of complying with this section of the law, the F-1 (Recreation) District in El Cerrito and the C-R (Community Reserve) District in Richmond, which are now in effect, can be considered in conformance with the open space areas delineated on the open space plan. However, both of these zones are too rigid and do not allow some open space, recreational, and other uses of land that would be acceptable for many of the open space categories discussed in this plan.

Specific Implementation Items:

- The Planning Departments should as soon as possible develop a variety of open space zoning districts or combining-districts to accommodate the different categories of open space land.
- Except where specific circumstances indicate otherwise, development decisions should be subordinate to the policies in the Open Space and Conservation Elements.

e. Amendments to Local Ordinances.

In addition to the adoption of open space zoning districts, other amendments to local ordinances, including the subdivision, grading, and zoning ordinances, may be necessary to carry out the policies in this plan. Model ordinances that could be used to carry out some of the policies are included in the Environmental Analysis of the Tri-Cities Area.

Specific Implementation Items:

- After the Seismic Safety Element is adopted, undertake a comprehensive review of local building codes, grading ordinances, subdivision ordinances, and zoning ordinances to ensure they conform with policies adopted in the Open Space, Conservation, and Seismic Safety Elements. Adopt necessary changes.
- Investigate the possibility of adopting new ordinances, such as an ordinance to preserve archaeological sites.

f. Williamson Act Lands.

Contra Costa County has since 1968 extensively used the Agricultural Preserve Program to preserve agricultural lands for at least a ten-year period.

The Agricultural Preserve Program has not been used by the Cities of El Cerrito, San Pablo, and Richmond. However, particularly in Richmond, many areas are very suitable for either cultivated agriculture or cattle grazing. Most of this land is being taxed at rates far above its value as agricultural land because of its proximity to urban areas.

If this land proves unsuitable for urban development, placing it in Agricultural Preserves might make it profitable for agriculture. The Agricultural Preserve Program can also be extended to such wildlife habitat areas as marshes and mudflats.

Specific Implementation Items:

- Adopt the Agricultural Preserve Program for property shown as open space whose owners wish to retain it as agriculture. Extend the program also to wildlife habitat areas and submerged areas shown as open space.

g.* Use of Scenic Easements.

There is a little-used provision in the Government Code (Section 51050) allowing for any city with an adopted general plan to accept grants of open space easements on privately owned lands. Parcels may be accepted for easement if the Planning Department or Planning Commission reports that the easement is in conformance with the adopted general plan. The City Council must officially accept the easement for a period of not less than 20 years. After granting the easement, the city may not issue a building permit which would violate the easement. The tax assessor is notified that the easement has been accepted to insure that taxes are in conformance with the restrictions.

This program has advantages over the agricultural preserve program in that:

- it provides for no minimum acreage of land;
- it can include all uses of land as long as they are consistent with the adopted general plan goals;
- it does not require any rezonings;
- it can provide a tax break merely by resolution of the Planning Commission and City Council. This is especially important to parcels close to or in urban areas because it eliminates some of the fees and eliminates undue delays.

The disadvantages of the program are:

- that no tax break is necessarily provided the owner;
- that it requires tying up the land a minimum of twenty years rather than the ten years for the Agricultural Preserve Program.

Specific Implementation Items:

- The cities should encourage the granting of open space easements in open space areas, and should accept such easements when offered.

* Sections g through i of this section are derived extensively from Contra Costa County's Action Program.

h. Environmental Impact Reports (EIR).

Any actions which are found to be contrary to the Open Space and Conservation Plan should be discussed specifically in each environmental impact report prepared by each city.

Specific Implementation Items:

- Use the policies in the Open Space and Conservation Plan as a guide for evaluating the environmental impact of proposed projects.
- Use the EIR process to establish better environmental coordination with other agencies.
- All proposals for urban development or land fragmentation in the open space areas should be considered environmentally significant and, as such, require an environmental impact report.

i. General Plan Compatibility.

State law (Section 65402) specifies that:

"If a general plan or part thereof has been adopted, no real property shall be acquired by dedication or otherwise for street, square, park or other public purposes, and no real property shall be disposed of, no street that be vacated or abandoned, and no public building or structure shall be constructed or authorized, if the adopted general plan or part thereof applies thereto, until the location, purpose and extent of such acquisition or disposition, such street vacation or abandonment, or such public building or structure have been submitted to and reported upon by the planning agency as to conformity with said adopted general plan or part thereof."

Thus, any public project listed above must be referred to the Planning Departments of the three cities to ensure that they are in conformance with the Open Space and Conservation Plan. These referral provisions cover projects of one unit of government that are located in another unit of government.

Specific Implementation Items:

- Review all public projects for consistency with this plan as early as possible so as to minimize wasted effort on projects deemed not to be in conformance.
- Insure that this mandatory referral process is utilized by all governmental projects prior to any authorization.

j. Continued Intercity Cooperation.

The Open Space and Conservation Plan has made a number of recommendations for continued formal cooperation of the Cities of El Cerrito, Richmond, and San Pablo in specific areas. In addition, continued consultation in general environmental matters between the three cities can avoid conflicts and strengthen the voice of the three cities when speaking to other levels of government.

Specific Implementation Items:

- Continue the Tri-Cities Planning Agency as a vehicle to continue the cooperation of the three cities in planning and related environmental matters.
- Urge that the cities initiate cooperative studies in matters recommended in the Open Space and Conservation Plan, including questions of uniform park and recreation standards; uniform storm drainage standards; and a master drainage plan for the San Pablo-Wildcat Creek watersheds.
- Urge the three cities to work cooperatively in developing a priority list for the County's share of the State Park Bond Program.

k. Programs of Community Education.

Policies of the Open Space and Conservation Plan indicate the need to inform citizens of problems such as unstable slopes, flooding, and eroding creekbanks in certain parts of the Tri-Cities Area.

Specific Implementation Items:

- After completion of the Seismic Safety Study, prepare a packet of information to give to applicants for building permits, including information regarding earthquake faults, unstable soils, other soils problems, flooding, eroding creekbanks, fire hazard, and the like.
- Investigate ways to supply purchasers of real property with similar information.

l. Conservation of Historic and Cultural Sites.

While West Contra Costa County is relatively young compared to areas in the eastern part of the United States, it has numerous sites and structures that are of historic, architectural, or cultural merit. Most of these sites are owned by private parties, and many are worthy of preservation.

Some of the recognized historical sites are indicated on the Open Space and Conservation Plan. However, these few sites do not begin to include all the culturally significant sites in the area. Lacking, for instance, are the numerous architecturally significant buildings that should be recognized as representing various building styles.

Efforts have been underway to preserve some of these sites for some time. San Pablo will reconstruct the Alvarado Adobe, and Richmond has made proposals for historic preservation in its Coastline Plan. However, many more culturally significant buildings should be preserved.

Specific Implementation Items:

- Direct each city's Planning Department to explore the possibilities for historic preservation and prepare a report to the Planning Commission on possible programs.

2. REQUESTS TO OTHER AGENCIES, BOARDS, AND COMMISSIONS.

a. Association of Bay Area Governments.

ABAG is responsible for attempting to coordinate the planning efforts of all jurisdictions within the Bay Area. They have developed a generalized regional plan and rely on member jurisdictions to add further details responsive to local needs. Communication has been maintained between the Tri-Cities Study staff and ABAG's planning staffs during the development of this draft plan.

Specific Implementation Items:

- Refer the draft conservation and open space element to the ABAG staff for review and comment.
- After the adoption of this element, request that the ABAG Executive Committee adopt this plan as a further definition or detailing of their plan, to be used by the ABAG staff in their planning efforts.
- Request that all future projects that they review be related to conformance with this plan.

b. East Bay Regional Park District (EBRPD).

The Park District has been actively engaged in purchasing and developing recreational facilities within the three cities. The Park District is currently in the process of preparing a 20-year master plan of recreational needs for the County, which is to be completed by 1974. Every effort should be made to aid the District in their effort and to ensure that needed park expansion in the Tri-Cities Area is given high priority.

Specific Implementation Items:

- After the Open Space and Conservation Plans are adopted, the three cities should urge the Citizens Task Force and the East Bay Regional Park District staff to give high priority to proposed park acquisitions in the Tri-Cities Area.
- After the Park District master plan is developed, it should be processed through each city's Planning Commission to meet the mandatory referral provisions of the law.
- Open space lands received through dedication adjacent to EBRPD property should be offered to the Park District to protect the viewsheds of the facility wherever possible.

- Encourage the Park District to institute an advertising program to ensure that members of the public are aware of all the District's facilities.

c. East Bay Municipal Utility District.

The East Bay Municipal Utility District is responsible for policies regarding water supply, water conservation, and recreation on their lands. Many of the Open Space and Conservation Plan's recommendations relate to functions under EBMUD's jurisdictions.

Specific Implementation Items:

- Express the cities' concerns regarding mitigation measures for the American River Project; preserving the quality of the Sacramento-San Joaquin Delta; water reclamation; and water rates.
- Request EBMUD to study the effect of the Sobrante recycling facility on downstream vegetation in San Pablo Creek.

d. Contra Costa County Flood Control District and Army Corps of Engineers.

The Open Space and Conservation Plan includes a number of policies relating to the proposed flood control project on San Pablo and Wildcat Creek.

Specific Implementation Items:

- Communicate to the Army Corps of Engineers and to the County Flood Control District policies included in the Open Space and Conservation Plans, and urge them to assist in implementing those policies.

e. Richmond Unified School District.

The Open Space and Conservation Plan includes recommendations for the development of nature study areas adjacent to schools of the Richmond Unified School District.

Specific Implementation Items:

- Gain the cooperation of the School District in retaining areas adjacent to schools for nature study areas and in developing such areas for nature study where possible.

f. Tax Assessor's Office.

It is often difficult to retain areas as open space because they are taxed at a rate far above their value as open space.

Specific Implementation Items:

- Urge the Tax Assessor to assess areas shown as open space on the general plan at their value as open space.

3. POSSIBLE ADDITIONAL SOURCES OF REVENUE.

This section generally reviews some additional resources available to the cities for conservation and open space. This section does not review all the agencies that are actively involved in open space and conservation, but only possible sources of new money.

a. Fish and Game Code Monies.

Contra Costa County receives roughly \$8,000 yearly from fines imposed under the California Fish and Game Code. This fund must be used for the propagation and conservation of fish and game within the County, and for education and youth activities related to fish and game. To date this money has been utilized for a variety of purposes. A longer range program should be developed to spend this money according to priorities developed in coordination for overall park and recreation expenditures in Contra Costa County.

b. Park Dedication Fees.

Many jurisdictions collect money or land as part of building permits to help bear the cost of park and recreation facilities for future inhabitants. This money usually provides a supplemental source of revenue for parks rather than serving as the sole financing method for providing local parks. Such fees could be used by the three cities to purchase additional parks.

c. East Bay Regional Park District.

The Park District covers the entire Tri-Cities Area. It has a tax rate of .10 per 100 dollars for existing parks. In 1972 an additional 5¢ was assessed, and this will increase another 5¢ when its master plan is approved. Of the additional taxes, 80% will be utilized for acquisition of new lands and 20% for the maintenance and development of new facilities. The Cities should ensure that park acquisition within the Tri-Cities Area is given high priority.

d. Revenue Sharing.

The effect of the revenue sharing program on the park acquisition program of the three cities cannot be determined for some time. Changes in other park grant programs are still underway in Washington, D.C. Only when these issues are resolved can intelligent decisions be made on the use of revenue sharing money. If it appears that the cities eventually come out in the black from this program, some additional money may be available for open space uses.

e. State Beach, Park, Recreational and Historical Facilities Bond Act of 1974.

The State Bond Act will go onto the June 1974 ballot to the people

of California. If passed, this would authorize the state to issue \$250 million in bonds. Of this nearly \$2.5 million would be earmarked for use in Contra Costa County, some of which can be used for community and neighborhood parks. Other money will be available for use to the State Department of Parks and Recreation. The cities should prepare a priority park acquisition program to insure that adequate priority is given to local park acquisitions.

f. Review of All Excess City Lands.

A review of all lands in city ownership or tax default lands should be made to identify those parcels that have permanent open space value. Those with potential should be set aside until a decision can be made on the ultimate use of these lands.

g. Gifts.

If landowners are encouraged to donate land for open space purposes, the cities might achieve surprisingly good results. Federal income tax laws provide special inducements to property owners who donate land for open space and park purposes. Prohibitively high inheritance taxes often provide another incentive. Owners might also wish to donate development rights and easements. However, the key to the gift box is an individual whose specific job it is to secure lands for public use and enjoyment, and who is familiar with all methods and with the owners' situation enough to know when and how a gift might be 'solicited'.

h. Open Space Stewardships.

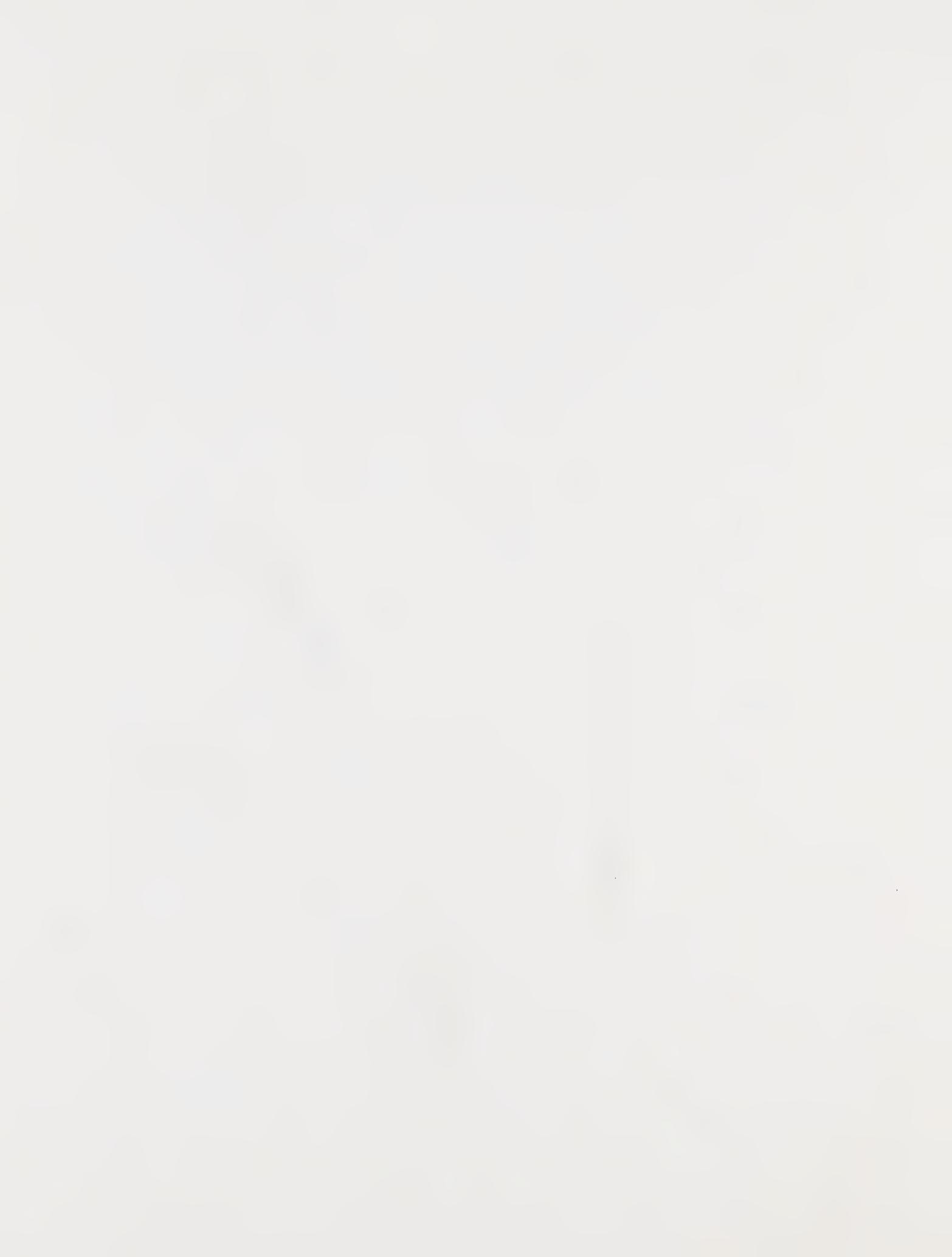
Conservation groups may hold land in a "land trust", a practice which serves the purpose of withholding development until public acquisition funds are secured. When such purchases conform to the Open Space and Conservation Plan, they can be encouraged by means such as tax incentives.

i. Alternative Tax Sources.

1. Real Estate Transfer Tax, charged when real estate changes hands. This tax might have the additional benefit of discouraging land speculation.
2. Horse Tax. Counties may tax riding horses and earmark the revenues for trail acquisition.

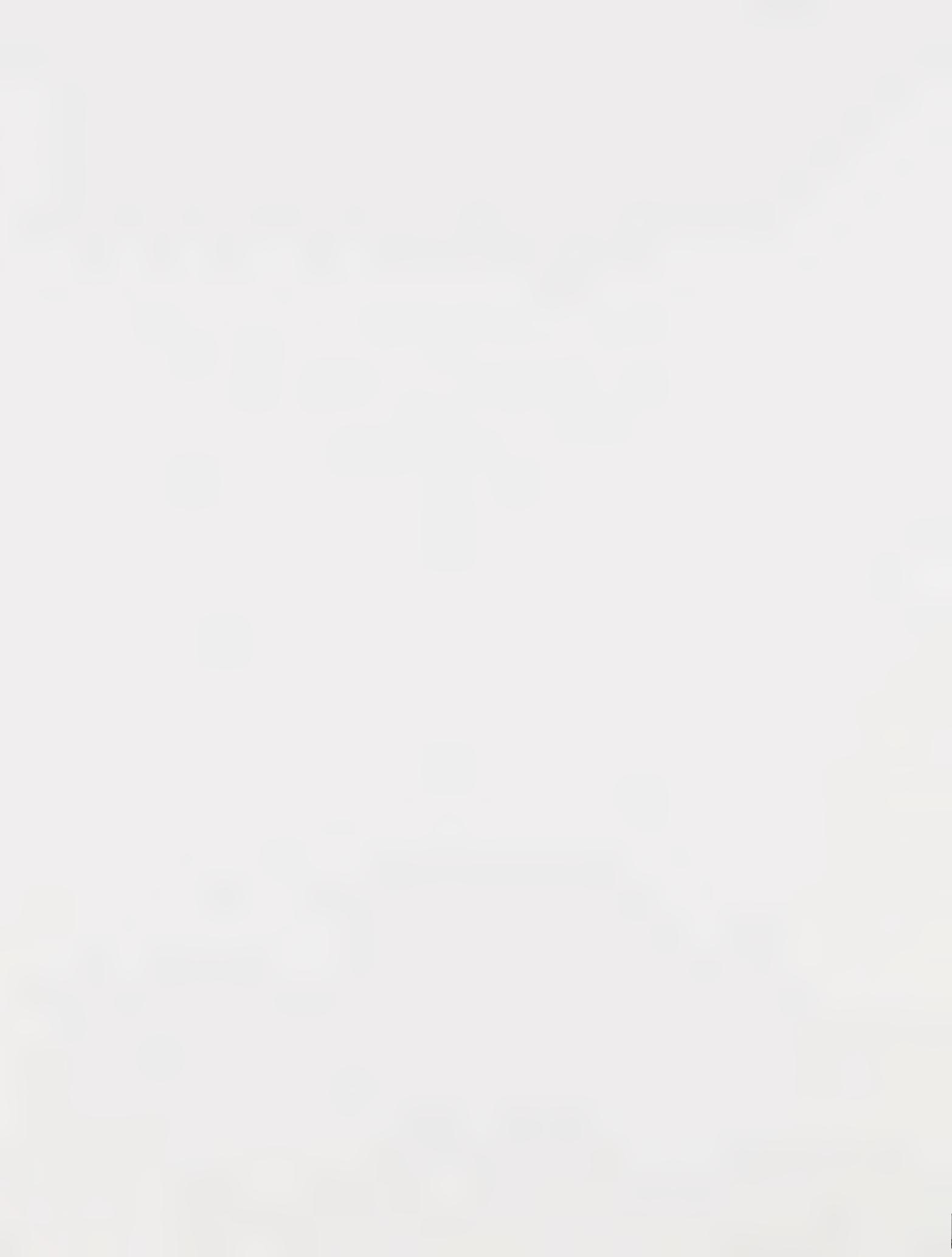
j. Federal Funds.

1. The Land and Water Conservation Fund is the largest source of federal funds available for purchase of open space land, on a 50/50 matching fund basis. It is seriously oversubscribed.
2. The Wildlife Restoration Fund, administered by the State Wildlife Conservation Board, provides funds for acquisition, development, and preservation of key wildlife areas.





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STUDY PARTICIPANTS

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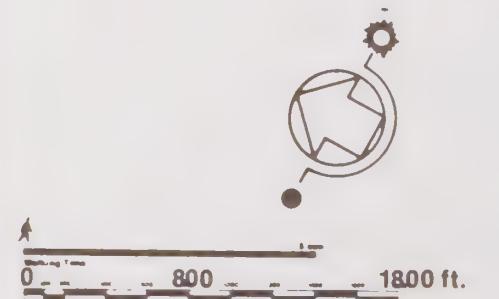
Gilbert Zermenio, Assistant Civil Engineer, City of San Pablo.

CITY OF EL CERRITO
CONTRA COSTA COUNTY, CALIFORNIA

OPEN SPACE MAP



- * VISTA POINT
- - - CREEK
- REGIONAL TRAIL
- xxxxxx RIDGE LINE
- [Shaded] OPEN SPACE FOR OUTDOOR RECREATION & NATURE STUDY
- [Solid Black] SCHOOLS, PLAYGROUNDS, PLAYFIELDS
- [Dotted Pattern] STEEP SLOPES (over 30%)



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